SEPTEMBER 7, 1946

Railway Age

Founded in 1856

fittingly the colors of the new streamlined "Pere Marquette" are the maize and blue of the University of Michigan

Modern Power

for a modern service

McCARTNEY LIBRARY
GENEVA COLLEGE
M6958

WHEN the Pere Marquette Railway recently inaugurated new streamliner shuttle service between Detroit, Lansing and Grand Rapids—it was more than another instance of General Motors Diesel locomotives being chosen to haul two new modern daylight trains.

Here was an important stride in railroading. Here was the first *postwar* establishment of fast, frequent, luxury service—at low rate — between closely located cities and their natural trading areas.

With General Motors Diesel-powered trains shuttling between such key points — bringing the *fastest* and most *reliable* passenger travel between city center and city center—a virtually untouched kind of service unfolds from which railroads can reap new revenue, and compete successfully with *any* form of transportation.

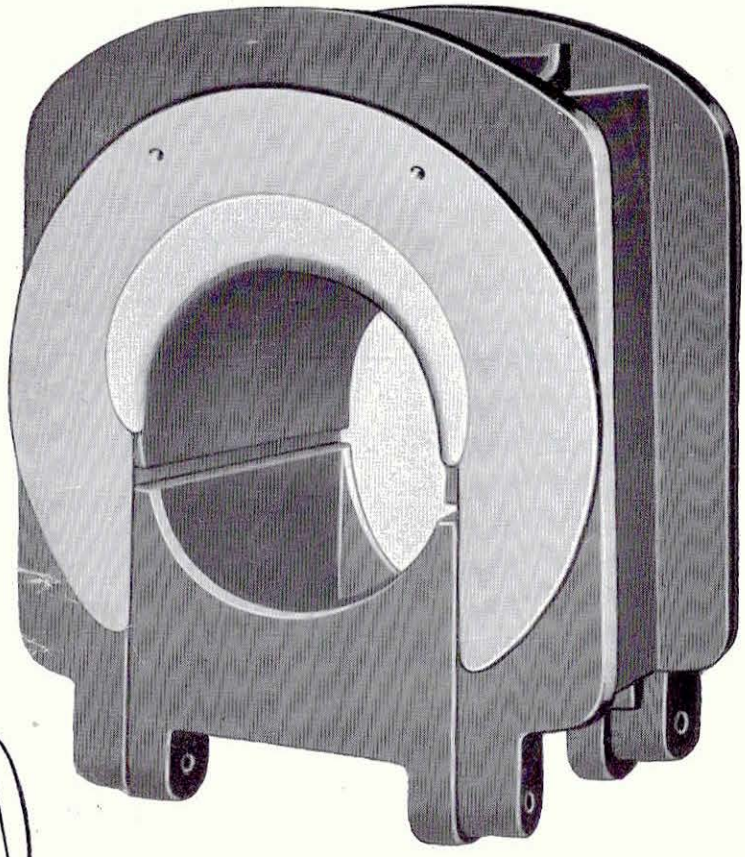
Every railroad which serves key cities within a 300-mile area, can well profit by this example and plan to take advantage of the traffic potential, opened up by modern power and train equipment.

YOUTHFUL
IN STAYING POWER

GENERAL MOTORS
LOCOMOTIVES

VETERANS
IN PERFORMANCE

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS — LA GRANGE, ILL.



Satco-Faced
Locomotive Driving Box

IMPROVED *Bearing Lining*

MAGNUS BEARING IMPROVEMENTS

1. Improved Bearing Metal Composition
2. Improved Satin Finish Broaching
3. **Improved Denser Lining Metal**
4. Improved Finer Finishing Equipment
5. Automatic Heat Control for Metal Melting Kettles

Magnus Bearing linings are now being applied by a new casting method which eliminates voids and assures maximum density and uniformity of the lining metal.

SATCO Bearing Metal

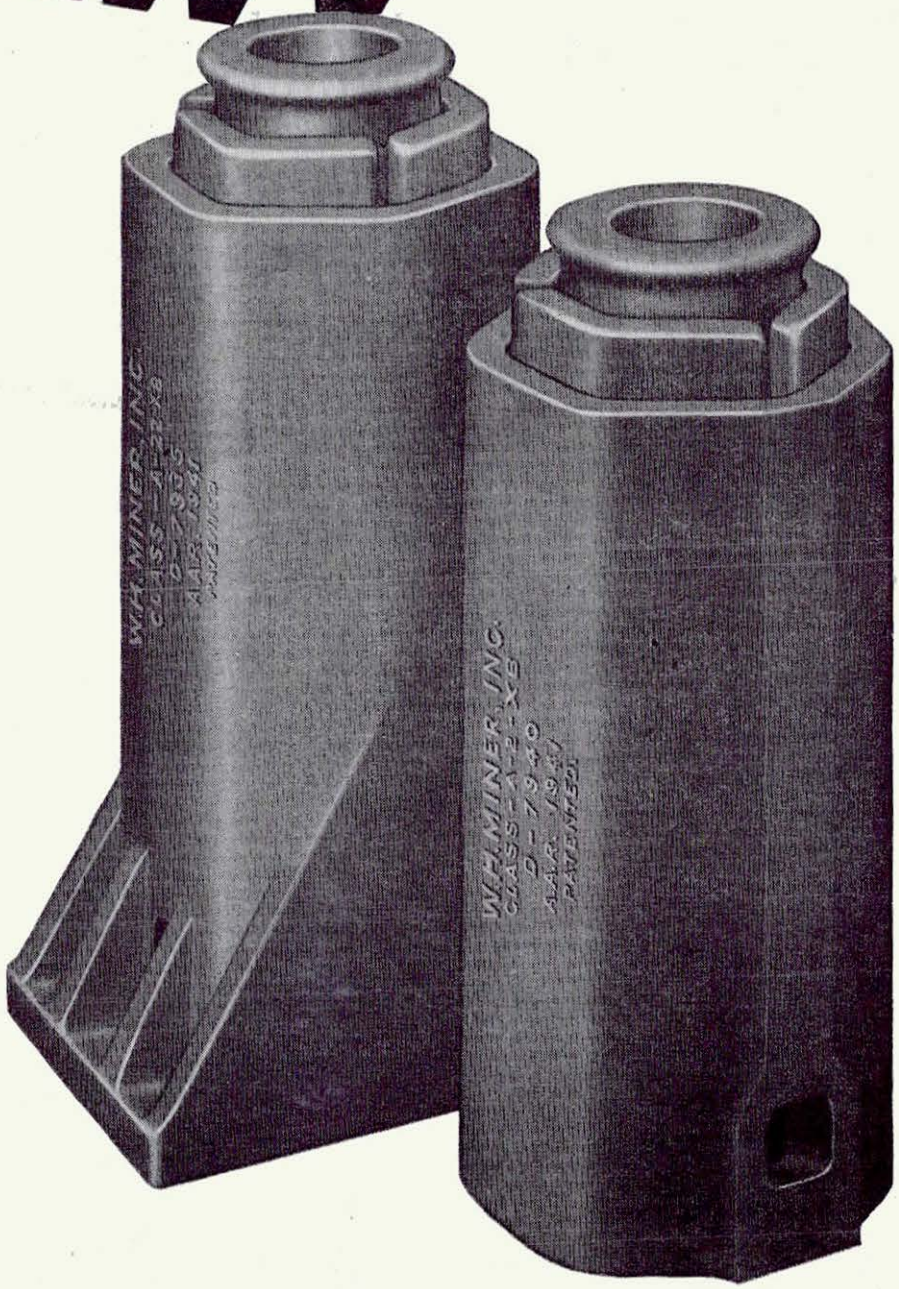
MODERN HEAVY DUTY BEARINGS

MAGNUS METAL CORPORATION
CHICAGO NEW YORK

1602

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 121, No. 10.

QUALITY



MINER

FRICTION DRAFT GEARS

POSITIVE IN ACTION

STURDY

ABSOLUTELY RELIABLE

W. H. MINER, INC. CHICAGO

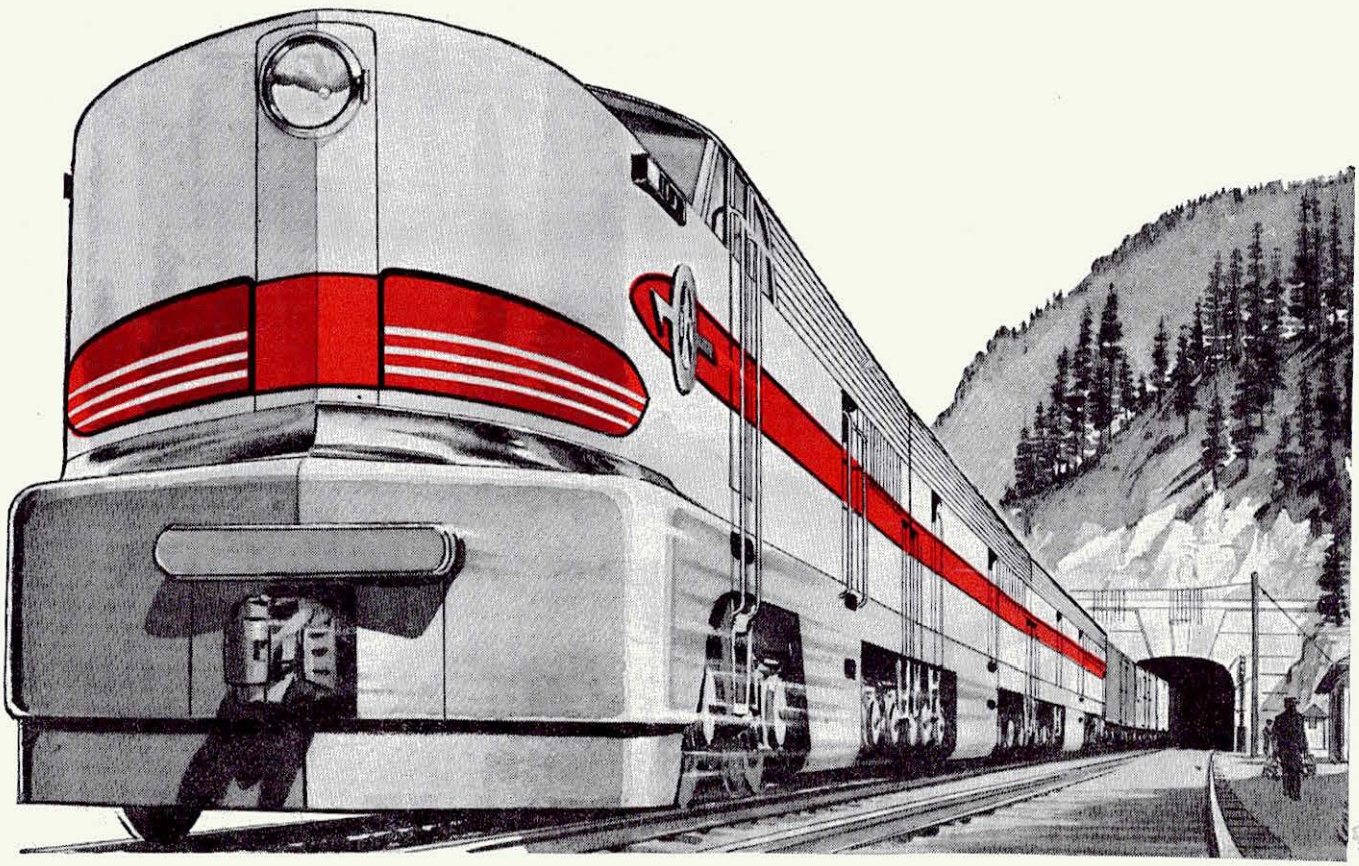
FAIRBANKS-MORSE DIESEL LOCOMOTIVES

Locomotives that pay dividends

DIESEL locomotives have proved their ability to build railroad revenue—to attract both freight and passenger business by punctual adherence to faster schedules.

Fairbanks-Morse Locomotives pay dividends in another way, too—by reducing operating costs. Their 2000-horsepower diesel-electric generating sets are the most powerful on the rails. Thus in Fairbanks-Morse Locomotives there are fewer diesels to maintain and service.

Fairbanks, Morse & Co., Chicago 5.



Fairbanks-Morse

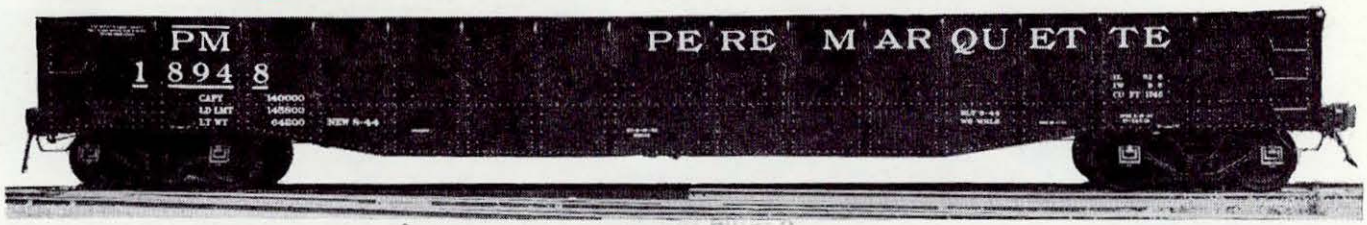
A name worth remembering

Diesel Locomotives • Magnetos
Diesel Engines • Scales • Pumps
Generators • Farm Equipment
Motors • Stokers • Railroad
Motor Cars and Standpipes

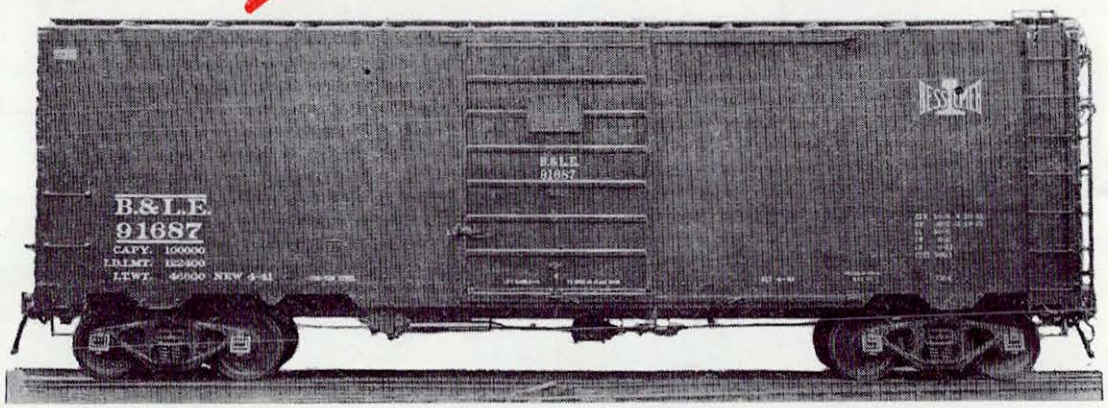
GREENVILLE STEEL CAR COMPANY

(SUBSIDIARY OF PITTSBURGH FORGINGS COMPANY)

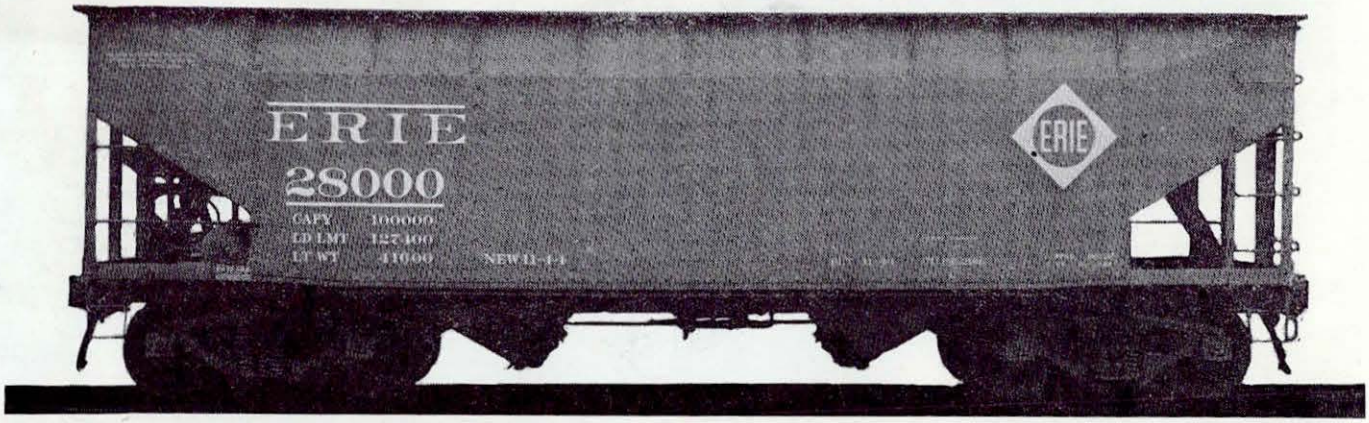
Good Service



At Your Service



Greenville

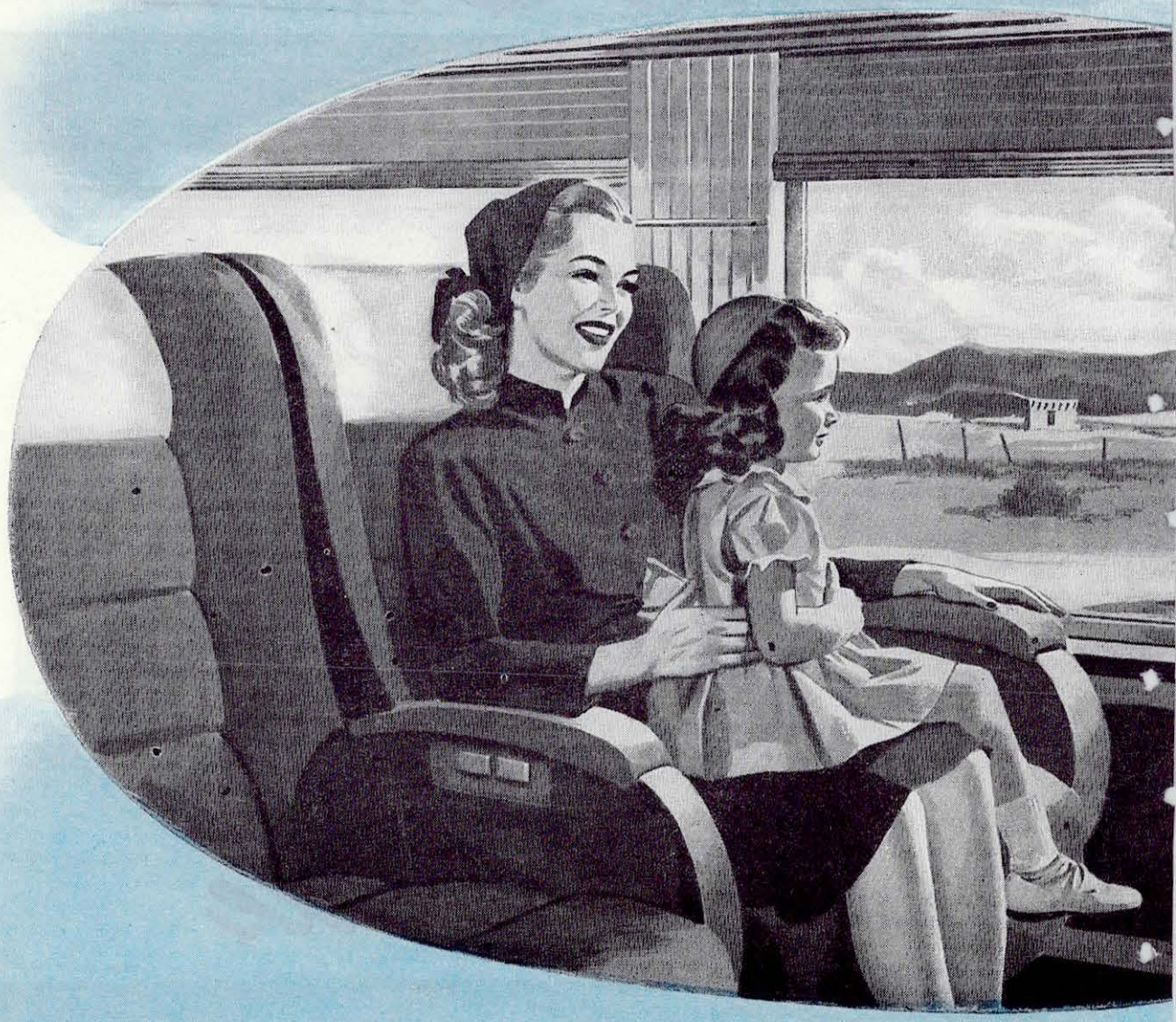


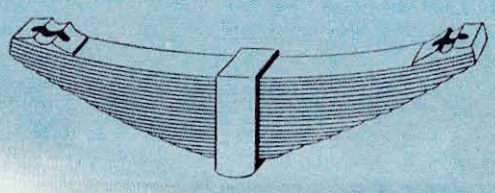
GREENVILLE PENNSYLVANIA

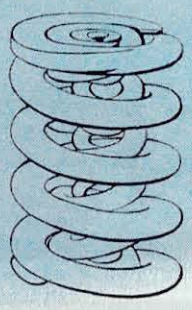
GULF BLDG., PITTSBURGH, PA. — 8-254 GENERAL MOTORS BLDG., DETROIT, MICH

Smart new interiors and wide windows will help your

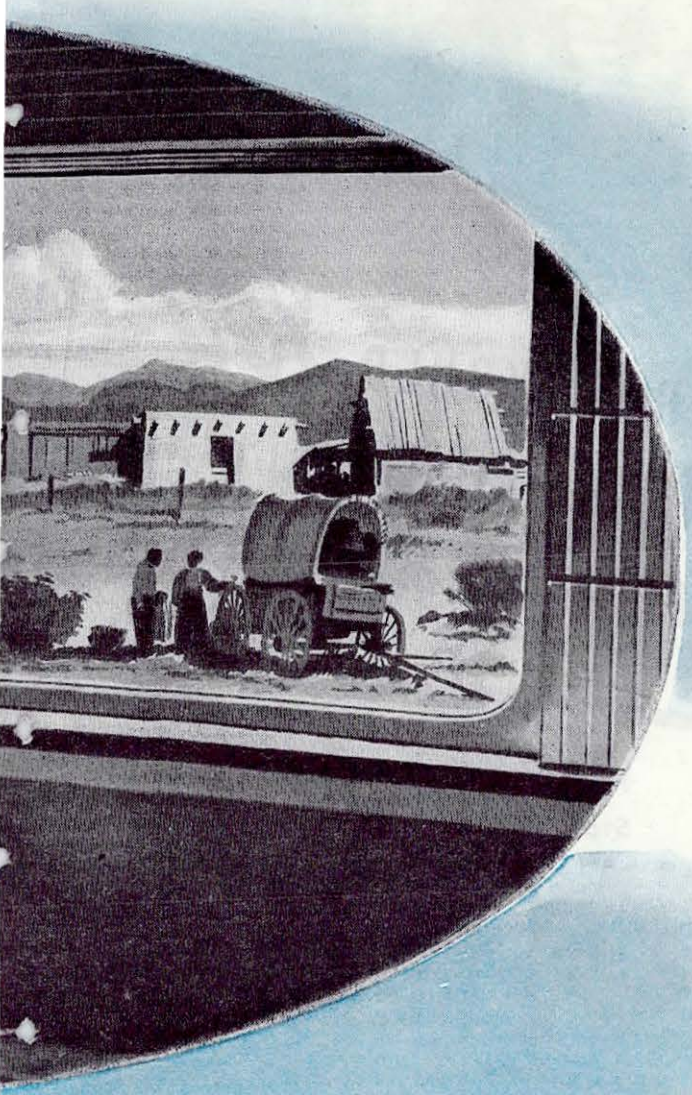
new equipment to succeed, but... **Remember that-**







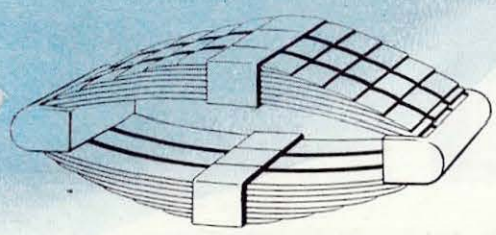
— Railroad Popularity Rides On Springs!



SO YOUR new railway cars are going to be ultramodern. The last word in beauty and style. Your freight cars, too, will be new and more efficient.

Fine! First impressions will doubtless be very nice. But what kind of impressions will your passengers and shippers get after they or their property have had a ride in those new cars? That's the real test.

And that's why we remind you here to think now about equipping your new cars with RAILWAY STEEL SPRINGS. Properly designed and constructed springs and spring suspensions promote smooth operation, lower maintenance expense, higher safety factor, reduced replacements—and more popularity with passengers and shippers.



American Locomotive

Alco

THE MARK OF MODERN LOCOMOTION

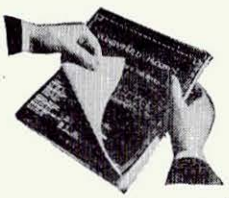
HOW WOULD YOU PICK THE RIGHT PACKING FOR THIS HAMMER?

"We do it by this sure-fire, time-saving method . . . the Johns-Manville Standardized Packing Plan.

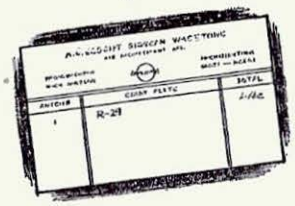
"Every packing on every machine in our shop is listed in this convenient plan by number . . . takes only a moment to look it up. That makes re-ordering easy, and it cuts down a lot of work in both our shop and storehouse!"

For over 25 years, leading railroads have saved time and money with the Johns-Manville Standardized Packing Plan. For more information, write Johns-Manville at New York, Chicago, Cleveland, St. Louis or San Francisco.

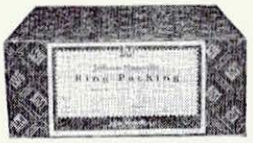
Here's How the Johns-Manville Standardized Packing Plan works:



1. You look up the tabulation for the equipment in the J-M Standardized Packing Plan, previously prepared for you by the J-M service engineer. It lists *by number* every packing on every piece of machinery in your shop.



2. You order the packing you need *by this number.* Use of a single number eliminates long and often confusing descriptions, avoids errors.



3. You get the *right* Johns-Manville Packing for your job, ready to give you long, efficient service. Use of the J-M Standardized Packing Plan means less stocks to be carried . . . no waste.

Johns-Manville

88 YEARS OF SERVICE TO TRANSPORTATION

Locomotive parts CUSTOM TAILORED ..quickly ..economically

With Modern Airco Oxygraph and Travograph Gas Cutting Machines

Today's check list of locomotive parts that are machine cut by the oxyacetylene flame range from washers to side frames.

An outstanding example of the operational flexibility of this process is shown in the illustrations on this page. This was one of the largest and most accurate cutting jobs on record...three 32½-foot locomotive frames were cut simultaneously by an Airco Travograph from a 38-ton slab, 5 inches thick. A minimum of machining was required after the cut was made — a new standard set for getting a job done . . . better, faster, at lower cost.

This is one of the modern time-and-cost-saving oxyacetylene and arc welding operations described and illustrated in Airco's new 48-page book "Oxyacetylene Flame Processes and Arc Welding in Railroad Mechanical Work" now on the press. For your copy fill in and mail the coupon today: Air Reduction, 60 E. 42nd St., New York 17, N. Y. In Texas: Magnolia Airco Gas Products Company, Houston 1, Texas.

AIRCO **AIR REDUCTION**

Offices in All Principal Cities

Costs Come Down Under the Airco Plan

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AIR REDUCTION
60 E. 42nd Street, New York 17, N. Y.
(III)-1

Send me a copy of your 48-page book — "Oxyacetylene Flame Processes and Arc Welding in Railroad Mechanical Work."

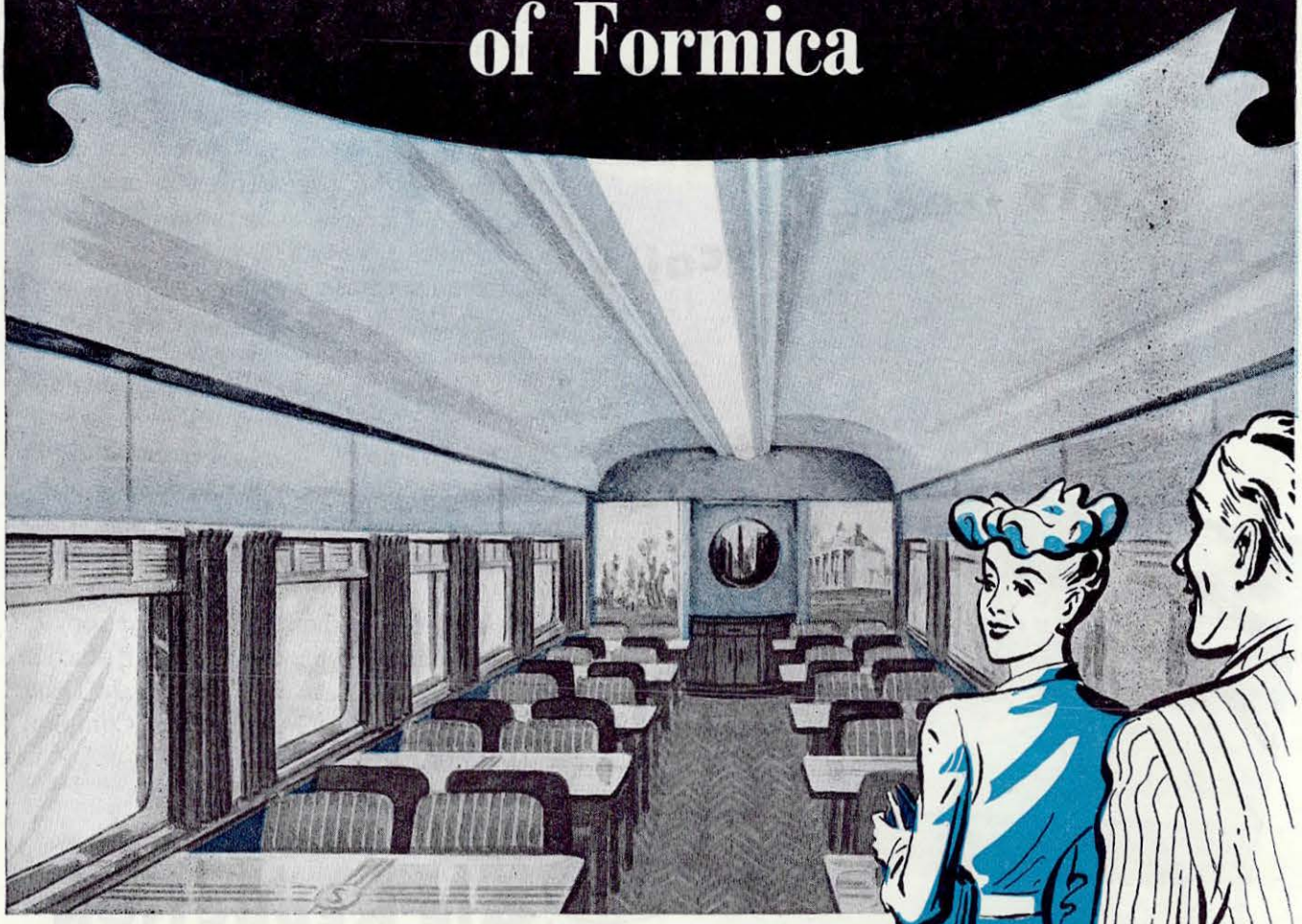
NAME_____

ROAD_____

ADDRESS_____

CITY_____ ZONE___ STATE_____

Now ...Passenger Car Ceilings of Formica



IN THE new passenger cars to come the amount of surface to be covered with Formica laminated plastic decorative sheets will be greatly enlarged.

A thorough trial of the material in the fine trains put on the rails before the war has led to a great expansion in its use.

To table tops, window stools, shelving in the toilet rooms, will now be added large areas of wall covering and ceiling panels—where it may be perforated either to assist air conditioning operations or for acoustic purposes.

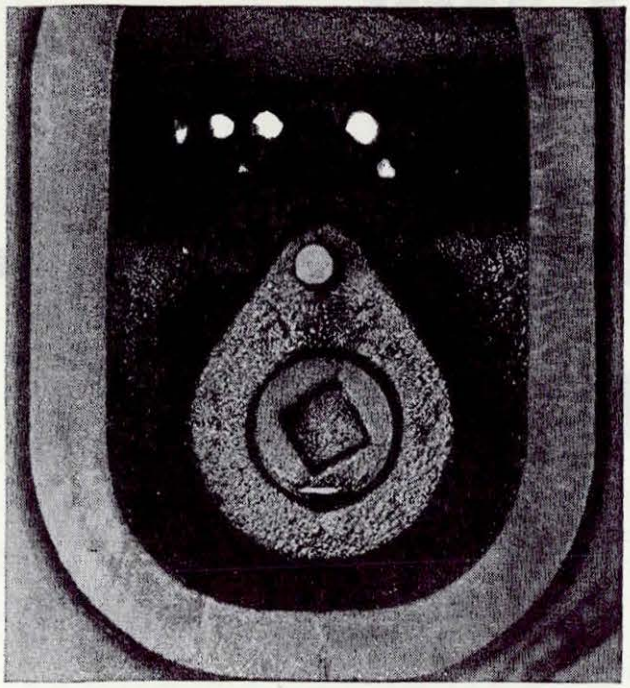
Experience has shown that Formica covered surfaces maintain their cleanliness and original good looks over very long periods—that they never need be refinished—and equipment never needs to be taken out of service for that purpose. Cleaning operations are exceptionally rapid and easy.

There is a wide range of colors and patterns to fit any decorative scheme. Color cards and installation data on request.

FORMICA
TRADE MARK REG. U. S. PAT. OFF.

THE FORMICA INSULATION CO., 4639 SPRING GROVE AVE. CINCINNATI 32, OHIO

Diesel Engine DANGER points



Air ports clogged after operation on uncompounded oil.

Clogged Ports Reduce Efficiency

To the operator of a two-cycle Diesel engine, the clogging of air ports can become a serious problem. Deposits on air ports are composed largely of fuel soot and oxidized products. These contaminants reach the lower cylinder when sluggish or stuck piston rings permit blow-by.

RPM DELO Oil Prevents Air Port Deposits

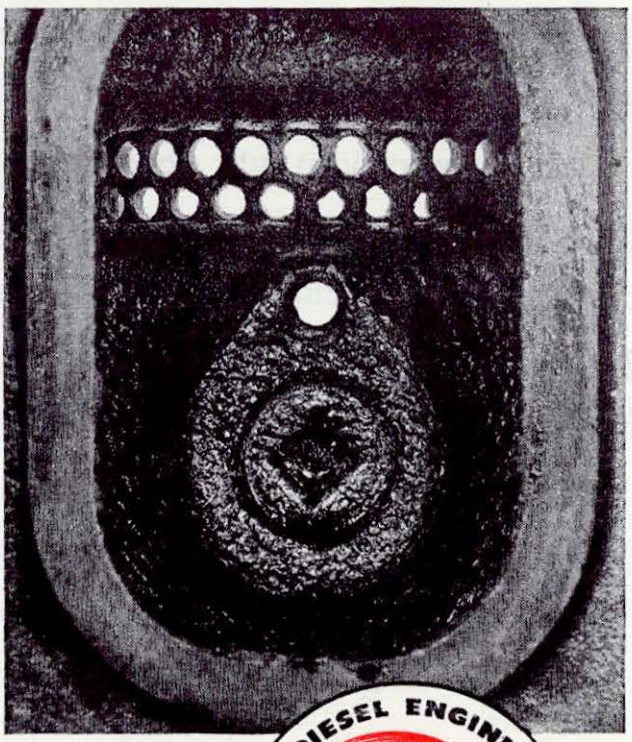
RPM DELO Oil keeps air ports clean three ways:

1. By reducing ring wear (RPM DELO Oil is compounded to cling to scorching wear points which most oils leave bare).

2. By preventing ring-sticking (a detergent in RPM DELO Oil eliminates the deposits which stick rings).

3. By preventing oxidation of the oil (RPM DELO Oil's anti-oxidant compound controls the gummy substances which act as a binder for deposits).

How RPM DELO Oil keeps air ports open.



To match the fine performance of RPM DELO OIL, use these equally efficient companion products from the same famous "RPM" line—RPM HEAVY DUTY MOTOR OIL —RPM COMPOUNDED MOTOR OIL—RPM GEAR OILS AND LUBRICANTS—RPM GREASES. For additional information or name of your distributor, write any of the companies below:

STANDARD OF CALIFORNIA • 225 Bush St., San Francisco 20, California
THE CALIFORNIA COMPANY • 17th and Stout Streets, Denver 1, Colorado
STANDARD OIL COMPANY OF TEXAS • El Paso, Texas
THE CALIFORNIA OIL COMPANY • 30 Rockefeller Plaza, New York 20

DIESEL ENGINE RPM DELO LUBRICATING OIL

MORE SCRAP
for Steel Mills
MEANS MORE STEEL
for You

To maintain and if possible expand the present rate of steel production, larger supplies of scrap must flow immediately to the mills.

We urge that you ship every available ton of iron and steel scrap *now*, and that you see that it moves as rapidly as possible toward a steel mill.

In that way you will accomplish these two things:

1. You will help to avert the threat of a scrap famine which would severely curtail the production of needed steel.

2. You will help the steel mills in their continuing effort to make more steel for yourself and other steel consumers.

BETHLEHEM STEEL COMPANY
General Offices: Bethlehem, Pa.

BETHLEHEM PACIFIC COAST STEEL CORPORATION
General Offices: San Francisco

★ BETHLEHEM STEEL ★

A QUICK WAY TO CHECK THE R.Q.* OF TRUCK SPRINGS

Here's how to make a quick, but conclusive, test of truck spring riding qualities. Select one of your tenders or auxiliary water tanks on which you can get a high-mileage test in a short time. We'll furnish instruments to make recordings (in co-operation with your engineers) of Riding Qualities (1) with your present springs and (2) with the same truck, equipped with the new Style C-200 Holland Volute Springs.

These springs make up a complete spring-nest unit—soft, long-travel, self-damping, suspension truck springs, which take the place of all the conventional helical springs, without any change in existing trucks.

***RIDING QUALITIES**

New Holland
Ride-Ease
Volute Truck Spring
STYLE C-200

50-Ton Group for Cars and Tenders

Twice as Soft as the A.A.R. 1915 Spring

2¾" Travel

HOLLAND COMPANY
332 SOUTH MICHIGAN AVENUE, CHICAGO, ILLINOIS

1899

Inherent STAMINA for Incessant

STOP and GO

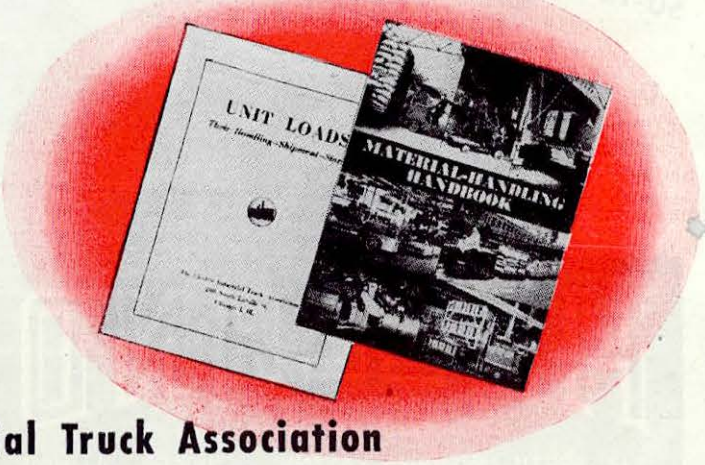
with Electric Industrial Trucks

Take a look at any industrial truck in action on a typical material-handling job. You'll find that its operation is one of repeated stop and go—all day long—picking up and setting down as well as carrying.

Look again, and you'll see that its effectiveness depends chiefly on *instant starting*, *rapid acceleration* and *accurate spotting*. Obviously these are more exacting characteristics than those required by ordinary horizontal transportation and they place altogether more exacting demands on truck ruggedness.

But they are demands to which the *electric* industrial truck is ideally suited. It is built to suit them. Its basic combination of battery power with high-torque electric motors, its principles of electric control and power transmission, and its inherent stamina resulting from E.I.T.A. Construction Standards are exactly—and exclusively—the characteristics needed for the gruelling stop-and-go of material handling.

Over 90 per cent of the electric industrial trucks sold in the past twenty years to over 300 branches of industry and distribution are still in service. Their versatile and money-saving performance is explained and pictured in the MATERIAL-HANDLING HANDBOOK and UNIT LOADS. **Your letter will bring these booklets—free.**



The Electric Industrial Truck Association

208A South La Salle Street, Chicago 4, Illinois

BOLTS FOR STEEL CONSTRUCTION

..with known and measurable properties

In calculating the strength of a bolted steel assembly, strength of the bolts and nuts is a definitely known value. Integrity of a bolted joint or assembly is predetermined by existing engineering data—*before a bolt is used.*

Shear and tensile strength is established for the anticipated loading stresses with proper margin of safety—*before a bolt is used.*

Selection of the correct type of bolt with its definite physical characteristics is always possible for any application—*before a bolt is made.*

Subsequent to all the safeguards surrounding delivery of sound raw material by the steel producer, the bolt manufacturer submits raw material to chemical, metallurgical and physical tests that confirm specifications before fabrication. Making bolts by cold-upsetting is, in itself, an extremely severe test of the soundness of raw material. There is no normal use for a bolt that subjects it to the drastic deformation that cold upsetting produces. Seams in the raw material, for example, which could be detected otherwise only by acid etching or magnetic inspection, will open up and become visibly apparent in the process of cold heading or upsetting. Material that can withstand upsetting successfully, *must be sound.*

Physical specifications can be met—*and are*—in a hundred or a million pieces, all alike, made by Lamson & Sessions. Remembering these facts, ask a Lamson engineer in to talk over your fastening problems—for he may be able to help you solve them.

Modern fastenings are of *standard* dimensions, made of *standard* materials, and manufactured by *standard* practices. There are more than 400,000 *standard* types, sizes and shapes made by the bolt industry. And when a bolted assembly is used, dis-assembly is always possible, *without destruction of the materials joined.*

THE LAMSON & SESSIONS COMPANY, General Offices, Cleveland 2, Ohio

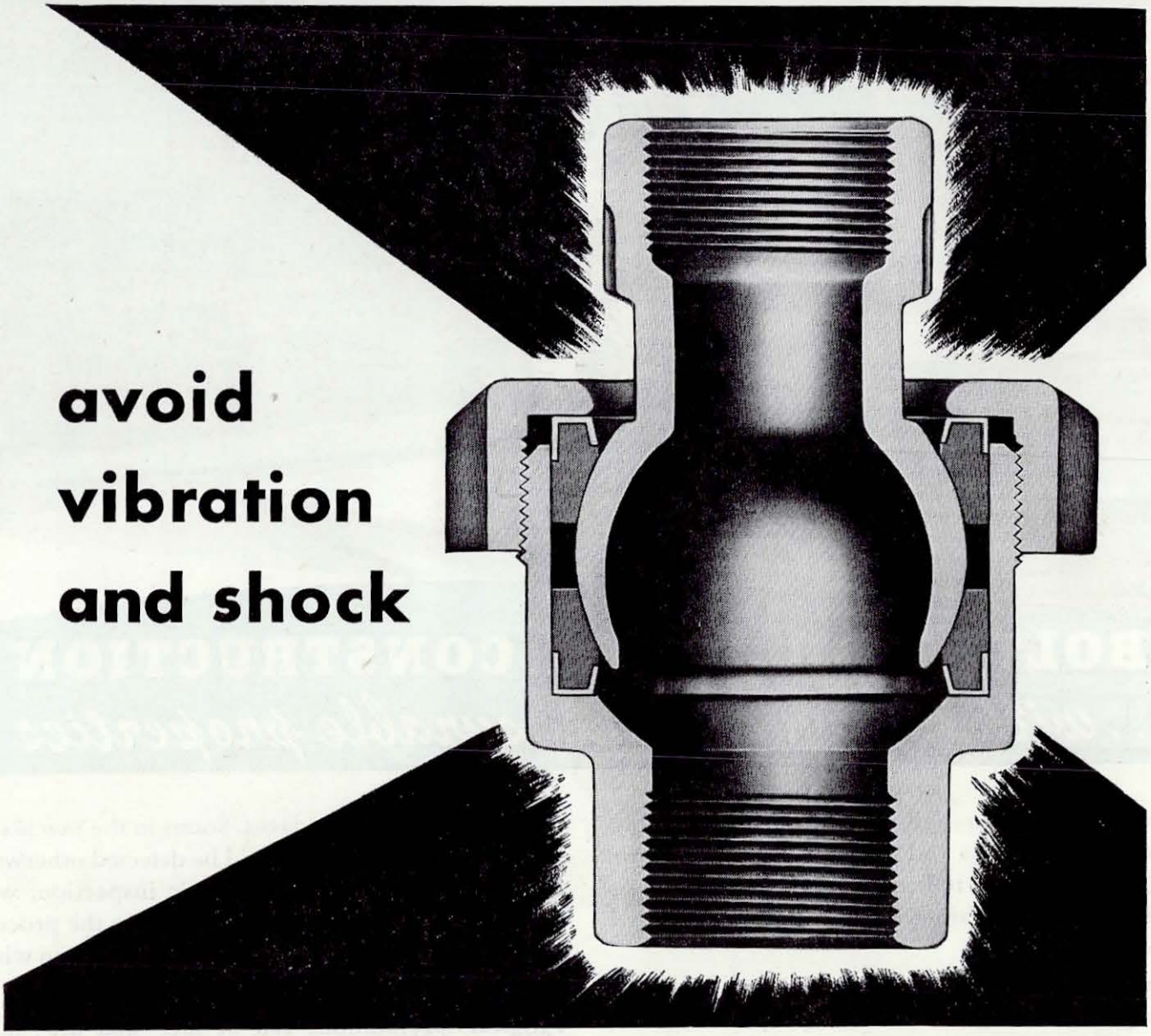
Plants at Cleveland and Kent, Ohio; Chicago and Birmingham

ND NUTS • WEATHER-TIGHT SHEATHING BOLTS • MACHINE SCREWS • FITTING-UP BOLTS • PIPE PLUGS •COTTERS • LAG SCREWS

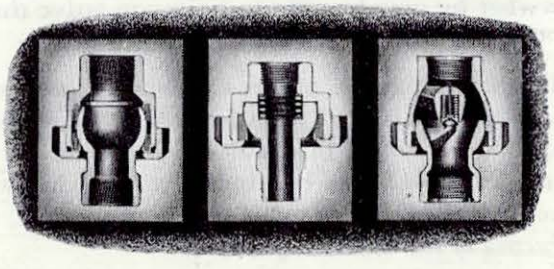
LAMSON & SESSIONS

TUDS • WIRE ROPE CLIPS • FLAT SPRING KEYS • LOCK NUTS • SHEET METAL SCREWS • CAP SCREWS • SET SCREWS • KEY BOLTS

avoid vibration and shock



There's no such thing as a RATTLING good fluid line!



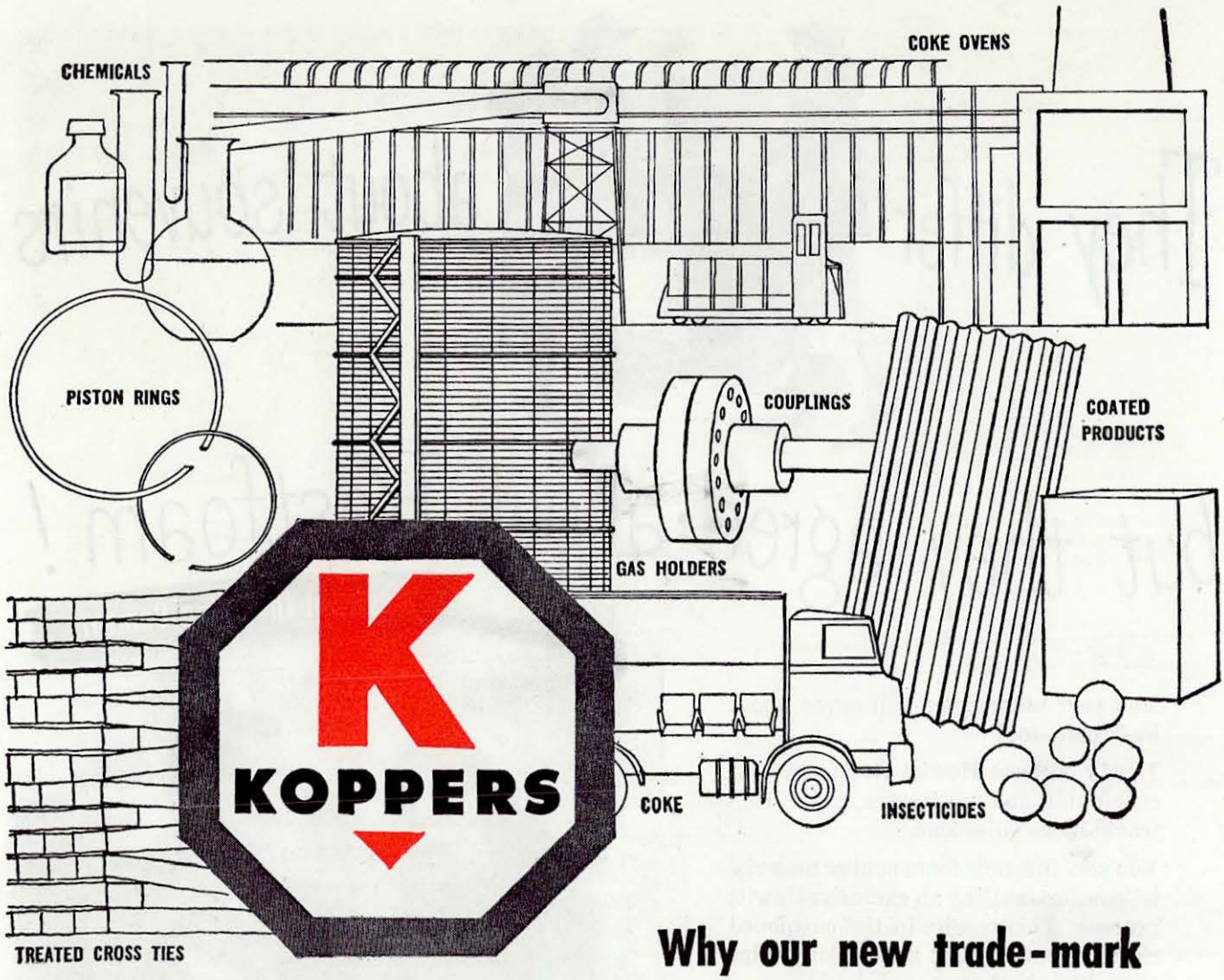
Flexibility to withstand vibration and shock is indispensable in every fuel line. Barco Flexible Joints assure steady flow of vital industrial fluids by providing responsive movement in fluid conveyors. They compensate for expansion and contraction, absorb the strains of changing pressures and constant vibration. Technical engineering data will be sent on request. Barco Manufacturing Co., Not Inc., 1800 Winnemac Avenue, Chicago 40, Illinois.

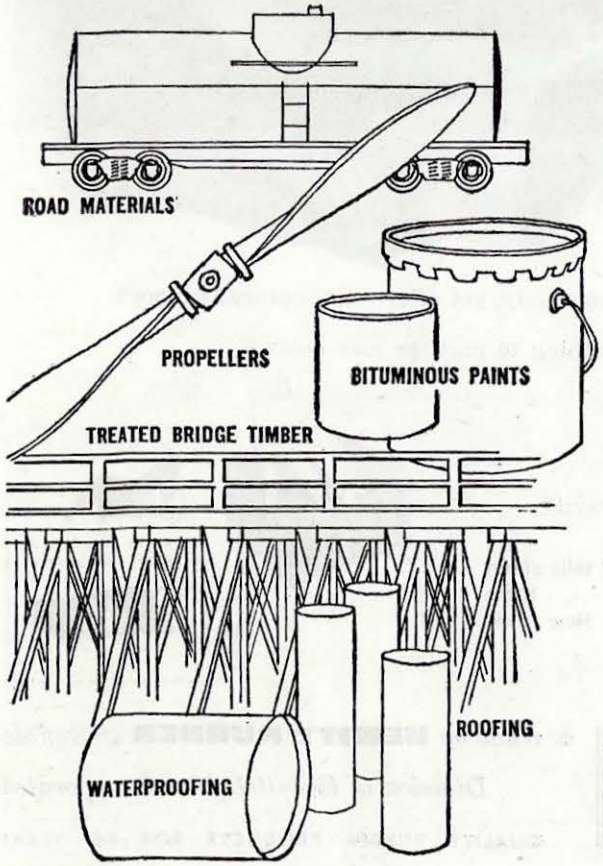
BARCO FLEXIBLE JOINTS

Not just a swivel joint ...but a combination of a swivel and ball joint with rotary motion and responsive movement through every angle.

EXHIBITOR
BRIDGE & BUILDING TRACK SUPPLY ASSOCIATION
HOTEL STEVENS, CHICAGO
SEPT. 16-17-18-19, 1946

"MOVE IN EVERY DIRECTION"





Why our new trade-mark is important to you

Every day, you place your health, your safety, your children, even your life at the mercy of manufacturers whose products you trust.

Often you do it because of some small mark which doesn't actually say anything in words, but which says volumes in the meanings you read into it.

That's what trade-marks mean to the American people. In effect, the trade-mark says, "Here is a manufacturer who is so sure of this product that he puts his name on it."

That's why our new Koppers trade-mark is important to you.

There are dozens of Koppers products; there will be dozens more as opportunities expand in the rapidly growing chemical field.

Often you will not be able to see the Koppers label on those products—you can't see it, for example, on road paving material or on a bottle of medicine—but the roadbuilder sees it and the medicine maker sees it, and their confidence in it is your safeguard.

Koppers also is well known as a dependable source for many other products and services which we furnish directly, such as the design and construction of coke ovens, roofing material, piston rings, couplings, propellers for your private plane, coke for your furnace, moth balls for your clothes, paints, pressure-treated wood and scores of others.—Koppers Company, Inc., Koppers Building, Pittsburgh 19, Pa.

KOPPERS—THE INDUSTRY THAT SERVES ALL INDUSTRY

They differ about souvenirs

but they agree about Restfoam!

And *your* passengers will agree about Restfoam, too!

That's because Hewitt Restfoam seat cushioning and mattresses make train travel more enjoyable.

You see, this new foam rubber material is "comfortized" by an exclusive Hewitt process. This results in the cushioned riding comfort that makes long trips seem like short ones.

So plan now to keep *your* customers satisfied with this "best bet in riding comfort." Remember, Restfoam provides *all five* essential advantages:

Extra Comfortable ... yields to every contour of *any* person's body, yet offers firm *natural* support.

Keeps Its Shape ... always returns to its original shape; nothing to pack or mat down.

Cool ... self-ventilated by millions of tiny interlaced air cells.

Sanitary ... odorless, washable, vermin-repellent.

Long Lasting ... far outlasts any ordinary cushioning material.

FREE! Send for your copy of "Best Bet in Riding Comfort." It tells about Restfoam—and its advantages for you and your passengers. . . . Write Hewitt Rubber of Buffalo, 240 Kensington Ave., Buffalo 5, New York.

HEWITT RESTFOAM

is made by **HEWITT RUBBER** *of Buffalo*

Division of Hewitt-Robins Incorporated

QUALITY RUBBER PRODUCTS FOR 86 YEARS

Ride a Postwar Wonder Train!

It's lounge car luxury at coach fares on the new PERE MARQUETTES —best way to travel between Detroit, Lansing, and Grand Rapids

1. IT'S YOUR FIRST TRIP on one of the new PERE MARQUETTES and it's an eye-opener! You step aboard a streamlined, Diesel-powered dream of a train. You whiz between Detroit and Grand Rapids 40 minutes faster than the best previous time. You get extra speed, extra comfort, extra luxury without adding a penny extra to your fare. All seats on these postwar wonder trains are reserved for the price of a regular coach ticket!

2. LOUNGE CAR COMFORT IN EVERY COACH! Relax and smoke — listen to the radio—in the lounge section that's part of every coach. There's porter service. And the whole train is air conditioned, spotless. Spacious powder rooms and lavatories, too.

3. EVERY TABLE A DINING NOOK! Look—tables in these new diners are set diagonally into alcoves along the wall. You get more aisle space, more eating space, more privacy. Grand food at modest prices, and—NO TIPPING, PLEASE!

4. SEATS THAT WENT TO COLLEGE! A famous university measured 3,857 travelers to pack these train seats with solid comfort. Completely adjustable. Lots of leg room. Individual twin-lens spotlights for easy reading. *Aren't you glad you came?*

3 FAST TRIPS EACH WAY
(Eastern Standard Time)

	DAILY	WEEK DAYS	DAILY
Lv Detroit	8:15 AM	12:15 PM	*5:15 PM
Ar Lansing	9:47 AM	2:04 PM	6:47 PM
Ar Grand Rapids	10:55 AM	3:15 PM	7:55 PM
Lv Grand Rapids	7:50 AM	1:00 PM	*5:25 PM
Lv Lansing	8:58 AM	2:15 PM	6:34 PM
Ar Detroit	10:30 AM	4:00 PM	8:05 PM

* Late afternoon trains one hour later on Sundays and holidays

ALL SEATS RESERVED AT REGULAR COACH FARES

Roll in Luxury on

The PERE MARQUETTES

TRAIN RADIO NOW AIDS IN OPERATION OF PERE MARQUETTE'S NEW, STREAMLINED TRAINS

"By virtue of their efficient and effective performance during the war, the nation's Railroads have won the respect and goodwill of the American people. It is essential that this public esteem be maintained. That is why progressive railroad managements are planning the use of many technical developments capable of making additional contributions to the safety and comfort of rail passenger service, and why the new streamlined passenger trains which Pere Marquette has recently put into operation are equipped with train radio communication systems."

President
Pere Marquette Railway Company

In designing mobile communications facilities for the nation's progressive railroads, Farnsworth has met and solved a number of unique engineering problems.

For example, before train radio could be of maximum service in streamlined train operation, new antenna techniques had to be developed. On the one hand, minimum clearance, far below the seventeen-to-twenty-inch height of the normal VHF railroad antenna, was a prime requisite. On the other hand, because human life, as well as valuable property, is involved in passenger train movements, efficiency and reliability could not be sacrificed.

Faced with this dual objective, Farnsworth engineers set to work. Creative engineering, coupled with careful field testing, resulted in the new *Farnsworth VHF train radio antenna.* Though as efficient as the taller, quarter-wave, ground-plane antenna, heretofore accepted as standard, it is only *twelve inches in height.*

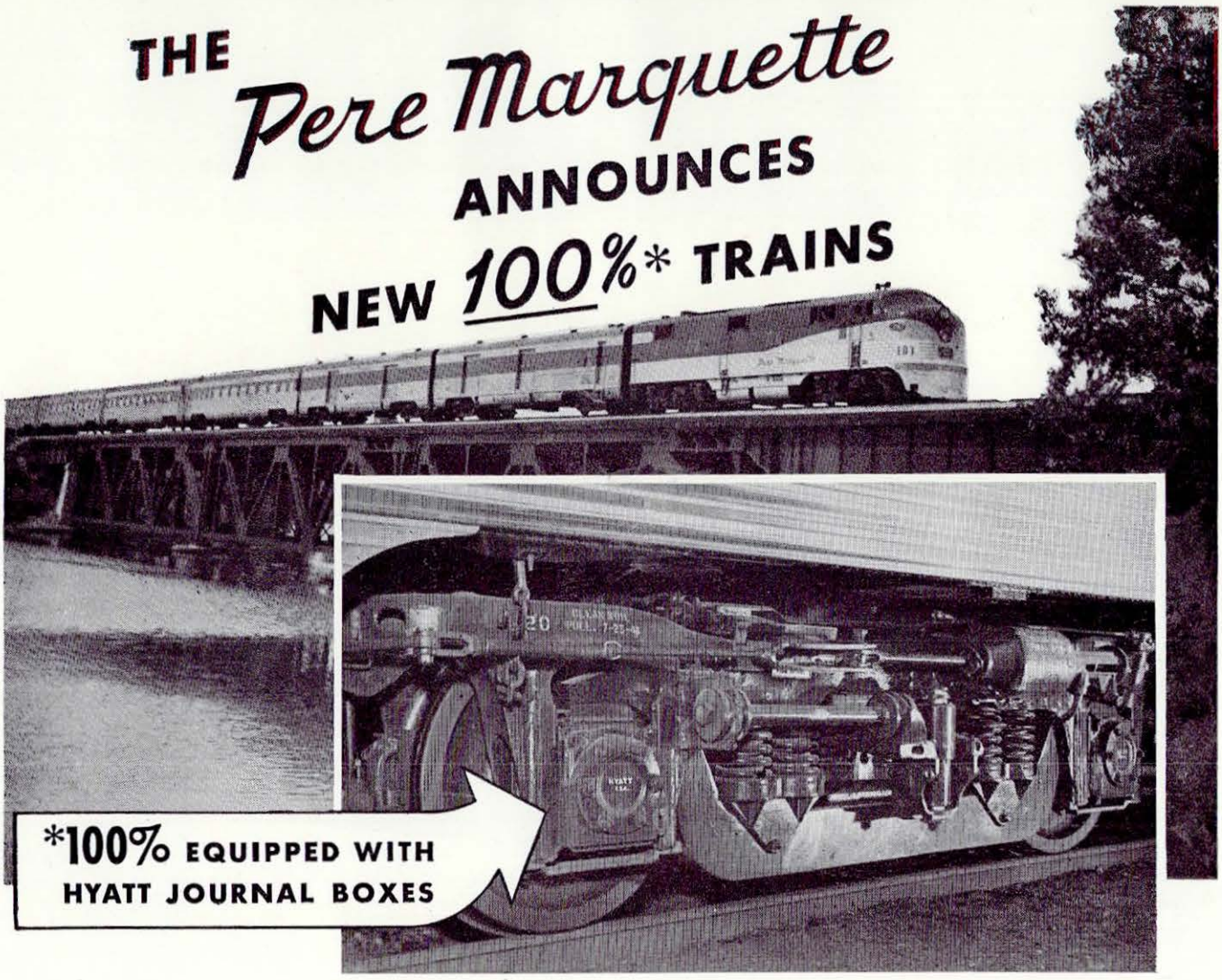
This new antenna is another instance of the careful engineering and thorough research through which Farnsworth railway communications systems guarantee *maximum usefulness and flexibility with simplified, low-cost maintenance.* Farnsworth Television & Radio Corporation, Dept. RA-9, Fort Wayne 1, Indiana.

FARNSWORTH ***TELEVISION & RADIO CORPORATION***

Farnsworth Radio and Television Receivers and Transmitters · Aircraft Radio Equipment · Farnsworth Television Tubes · Halstead Mobile Communications and Traffic Control Systems for Rail and Highway · the Farnsworth Phonograph-Radio · the Capehart · the Panamuse by Capehart

PERE MARQUETTE
"The Pere Marquettes"

THE *Pere Marquette* ANNOUNCES NEW *100%** TRAINS



*100% EQUIPPED WITH HYATT JOURNAL BOXES

It is with justifiable pride that the Pere Marquette announces the inauguration of its new trains, operating three round trips daily on week days and two round trips on Sunday between Detroit and Grand Rapids.

Modern equipment and speedy service are the conclusive answers to increased revenue.

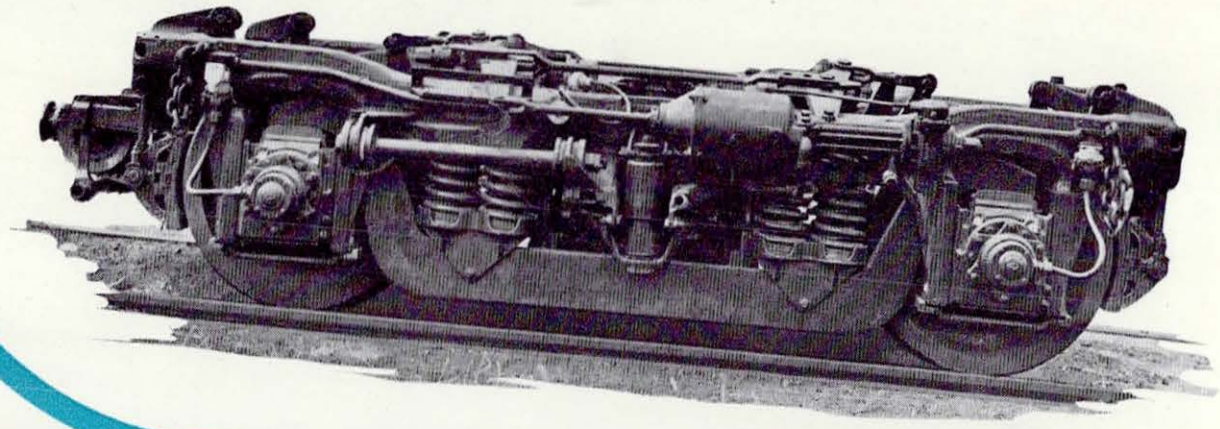
The Hyatt Bearings Division is gratified that its journal boxes and bearings were chosen by the Pere Marquette for the cars and Diesel Locomotives comprising these modern streamliners. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT ROLLER BEARING RAILROAD JOURNAL BOXES

COMMONWEALTH

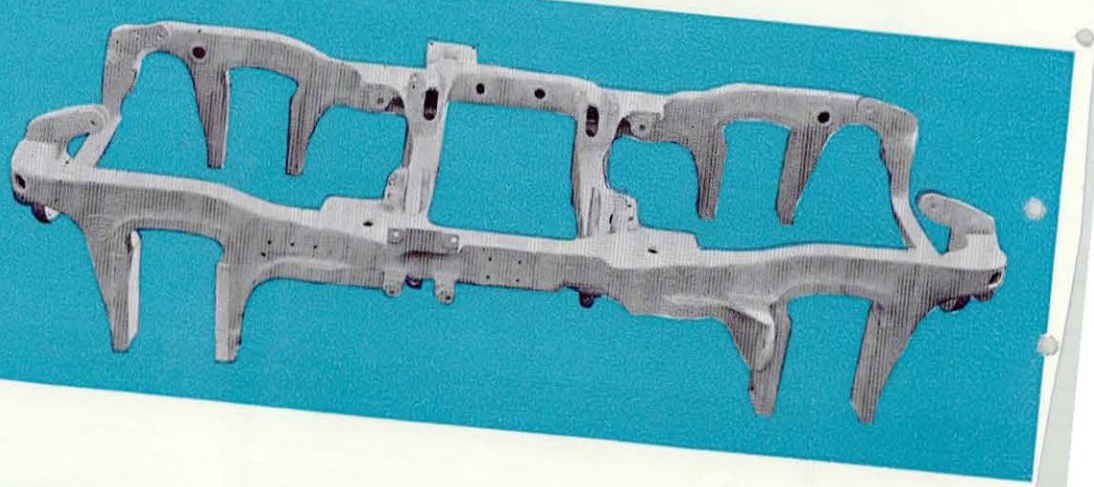
Assure Smooth, Quiet, Safe Riding

Commonwealth 4-Wheel Passenger Car Truck



Furnished by
General Steel Castings:

- Truck Frame
- Bolster with Center Plate
- Spring Plank
- And Other Parts



Commonwealth
One-Piece
Cast Steel Passenger
Car Truck Frame

Passenger Car Trucks

for the New "Pere Marquettes"

Built by Pullman-Standard
Car Manufacturing Co

Designed for fast, comfortable day travel, the two new seven-car trains just completed by Pullman-Standard for the Pere Marquette Railway are equipped with COMMONWEALTH 4-Wheel Passenger Car Trucks especially designed for modern high-speed transportation.

These new trucks of the most advanced design provide great strength with minimum weight through the use of COMMONWEALTH alloy cast steel one-piece truck frames, bolsters and spring planks.

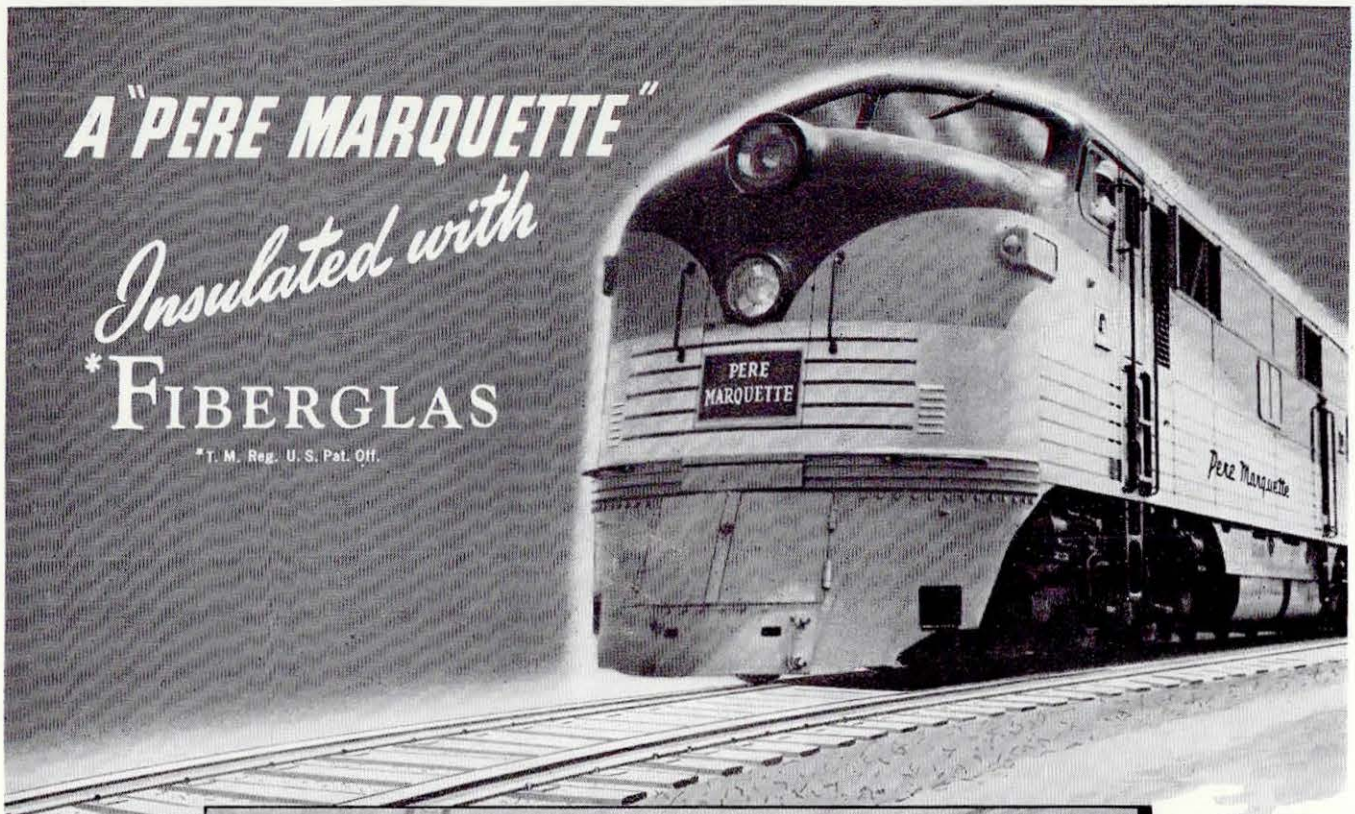
COMMONWEALTH passenger car trucks assure maximum serviceability with a minimum of maintenance; a smooth and silent ride at all speeds, with greater passenger comfort and safety.

GENERAL STEEL CASTINGS

EDDYSTONE, PA. GRANITE CITY, ILL.

A "PERE MARQUETTE" Insulated with *FIBERGLAS

*T. M. Reg. U. S. Pat. Off.



PULLMAN-STANDARD PHOTO

The "Pere Marquettes", first of the post-war streamliners, offer a concrete example of the service soon to be available to the American public—modern in every detail, embodying features that set new standards of passenger luxury, comfort and safety, at lower operating costs. G-B Ultralite Fiberglas insulation contributes to all of these.

Ultralite—it weighs only half as much as ordinary passenger car insulation—Fiberglas, with its high thermal efficiency and acoustical value, is the ideal insulation for the fast new trains. The pure glass fibers cannot burn—will not absorb moisture—will not rot—and offer no sustenance to vermin, rodents or insects. Pliable and easy to apply, Ultralite will not settle or shake down; provides thermal and acoustical protection for the "life of the car".

Fiberglas* is Sold to Railroads and Car Builders Exclusively by

G-B MFG. CO.

GUSTIN-BACON MANUFACTURING CO.

KANSAS CITY 7, MISSOURI

Established 1898

New York Philadelphia Chicago Tulsa Houston Fort Worth San Francisco

PERE MARQUETTE TAKES FULL ADVANTAGE OF THE

New "D-R" V-BELT DRIVE

To fully capitalize on the luxury afforded in the new Pere Marquette Streamliners, proper lighting and adequate air conditioning were vitally necessary. Both are most efficiently provided with the use of Dayton "D-R" V-Belt under-car Drives.

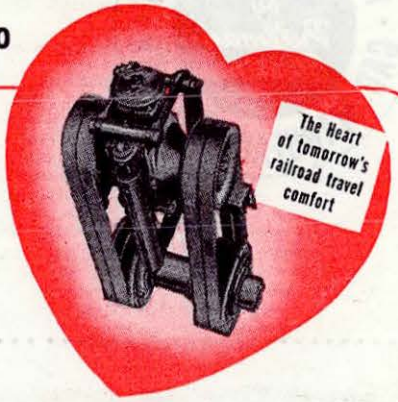
And, something new has been added to this drive. It is the new Dayton "D-R" V-Belt. This belt, incorporating years of war-born research, stronger fabrics, new compounds and new construction principles, is designed to give well over 150,000 miles of trouble-free service. Trouble-free in spite of the cold, snow and ice of winter, and the heat, dust and dirt of summer.

Now used on over twice as many air-conditioned cars as any other drive, the new Dayton "D-R" V-Belt makes possible the utmost in under-car drive dependability. Write today for complete information.

THE DAYTON RUBBER MANUFACTURING CO. • DAYTON 1, OHIO

Advantages of the Dayton "D-R" V-Belt Axle Drive

1. Quiet and smooth performance with high availability—in 15 years a mechanical failure due to V-Belts has never been reported.
2. Provides a flexible, cushioned connection between the car axle and the driven unit that protects generators and other equipment should a mechanical failure occur.
3. It is convenient and economical to install . . . no complicated or expensive truck changes are necessary . . . no special axles are necessary.
4. Duplicate equipment is not necessary to take care of emergencies—when wheel changes must be made, only the axle pulleys need to be removed.
5. It greatly reduces maintenance cost on mechanical equipment as well as on the drives.
6. It imposes a minimum weight on the car axle.
7. Easy and simple to install, dependable in operation, and insures uninterrupted performance.



Railroad V-Belts by **Dayton Rubber**

THE MARK OF TECHNICAL EXCELLENCE IN NATURAL AND SYNTHETIC RUBBER

FIRST

Disappearing Beds

Since the first berths in "Old No. 9," in 1859, Pullman-Standard has introduced every kind of improvement yet known for moving sleeping accommodations out of the way during the day. Modern Roomette beds, on balanced springs, slip from their wall spaces smoothly and without effort—ready for sleeping.

FIRST

Private Washrooms

Pullman-Standard was the first to introduce modern, sanitary plumbing in private washrooms . . . fixtures and fittings specially designed for train travel. Today, their private washrooms include every needed appointment for passengers' toilet requirements.

FIRSTS are traditional

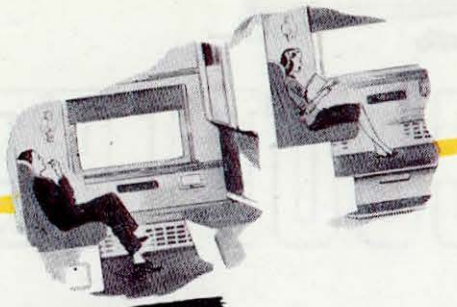
First private room—81 years ago.

First to build succeeding room improvements down to the latest Roomette.

PULLMAN-STANDARD CAR MANUFACTURING CO.
Built by Pullman-Standard

Pullman-

CHICAGO · NEW YORK



FIRST

Duplex Rooms

By a skillful use of space in the Duplex-Roomette, Pullman-Standard made private rooms available to more passengers per car. Alternate rooms on separate floor levels interlock to save space. This increased car capacity permits the railroads to provide passengers with low-cost private room luxury and convenience.

FIRST

Air Conditioning

Pullman-Standard began research into sleeping car air conditioning twenty years ago. They made the first successful installations. Pullman-Standard air conditioning in private rooms is adjustable to the occupant's individual desires. The passenger may also adjust the lighting and room temperature.

with PULLMAN-STANDARD

Delivery of the first postwar passenger cars.

The first air conditioned sleeping car.

The first streamliner.

PULLMAN-STANDARD is Sleeping Car Headquarters

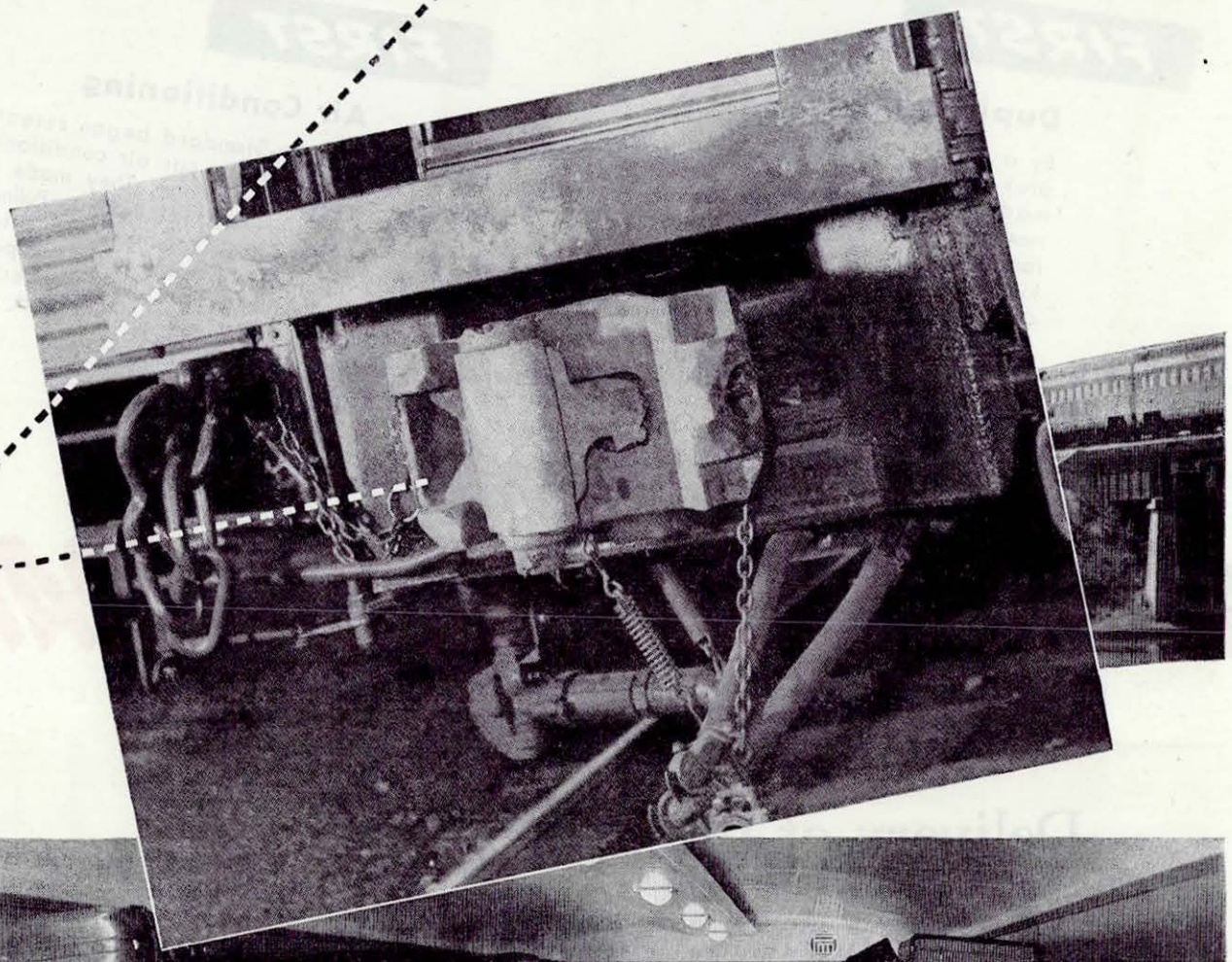
Standard CAR MANUFACTURING COMPANY

CLEVELAND · WASHINGTON, D. C. · PITTSBURGH · BIRMINGHAM · WORCESTER, MASS.

San Francisco Sales Representative, Mark Noble

PERE MARQUETTE
"The Pere Marquettes"

TIGHTLOCK COUPLERS



GIVE SMOOTHER, SAFER RIDING ON THE NEW PERE MARQUETTE STREAMLINER

Add another modern passenger train to the long list of those equipped with Tightlock Couplers, supplied by National Malleable and Steel Castings Company. Joining the cars with a rigid column of Naco Steel, our Tightlock Couplers bring far improved riding comfort and greatly increased safety for cars and passengers. Ask about Tightlock Couplers by *National* for your new or rebuilt passenger cars.

M&S Co

EST. 1868

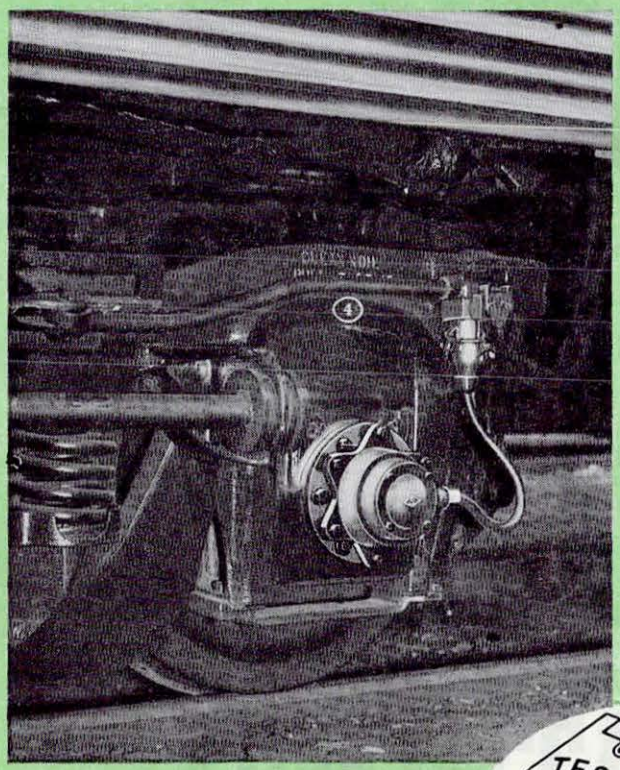
NATIONAL

MALLEABLE AND STEEL CASTINGS CO.

Cleveland, Ohio

SALES OFFICES: CLEVELAND · CHICAGO · NEW YORK · PHILADELPHIA · RICHMOND · ST. LOUIS · SAN FRANCISCO
WORKS: CLEVELAND · CHICAGO · INDIANAPOLIS · SHARON, PA. · MELROSE PARK, ILL.

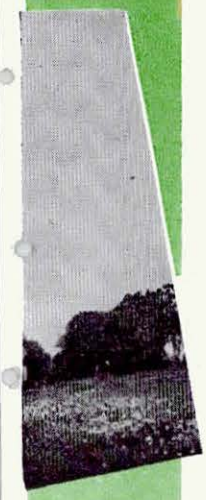
THE "PERE MARQUETTE"



by the AMERICAN BRAKE SHOE CONTROLLER

- One button tests the controller on each truck

4749



PROTECTED . . .

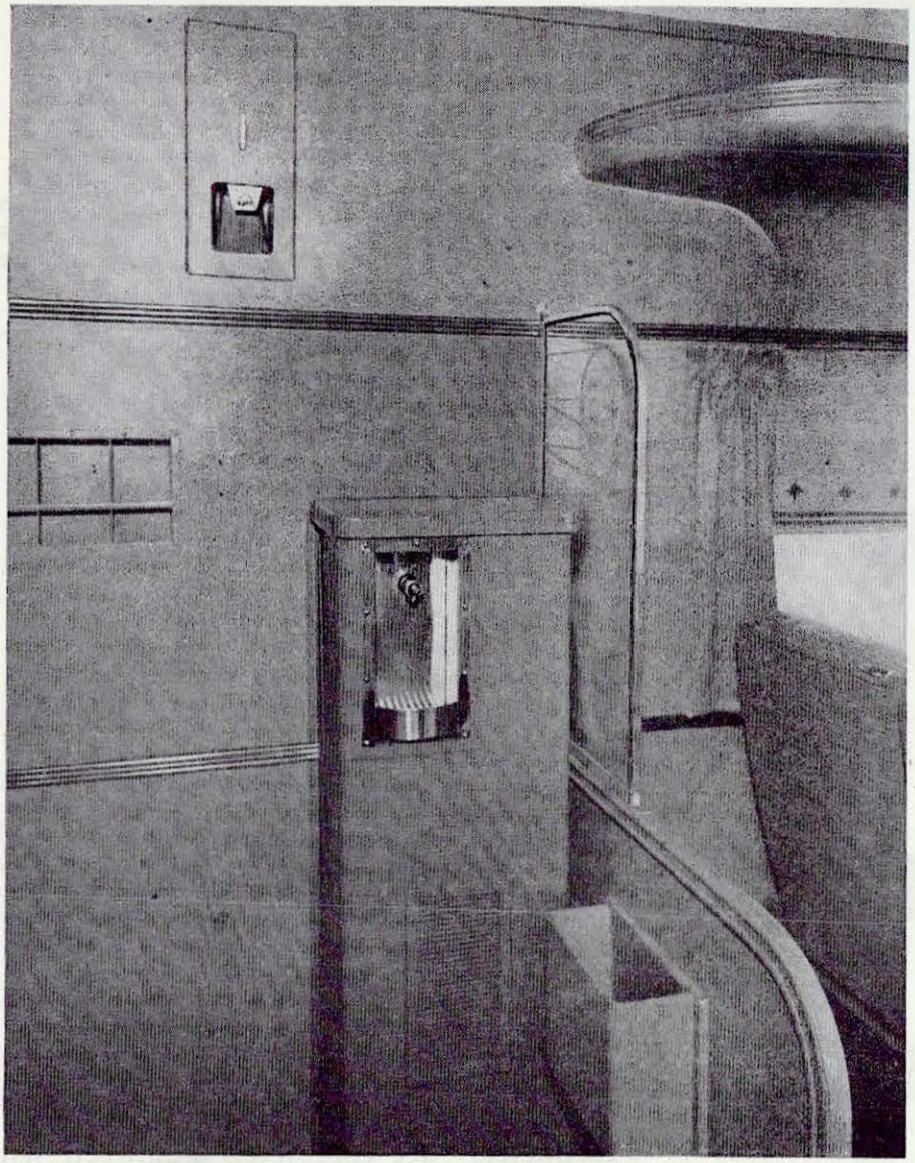
First of the postwar high speed passenger trains, these two new "Pere Marquettes" are completely equipped with The American Brake Shoe Controller, a simple, speedy electrical device for the prevention of slid flat car wheels.

The American Brake Shoe Controller acts automatically at the first sign of wheel slippage, and the moment the slip is corrected, full brake is restored. It may be tested when the train is standing or moving. Its installation is one way of assuring car-availability. The American Brake Shoe Company, 230 Park Avenue, New York 17, New York.

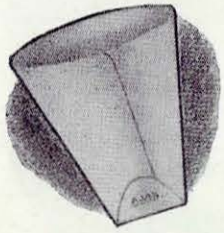
AMERICAN
Brake Shoe
COMPANY

BRAKE SHOE AND CASTINGS DIVISION

Streamlined Ajax Recessed Steel Dispenser as installed on the Pere Marquette Streamliner. Panel flush with car wall. Holds 150 cups. Designed for easy and rapid servicing.

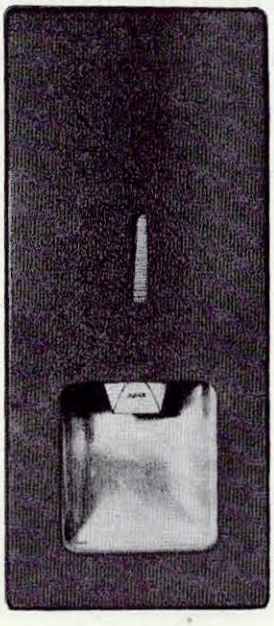


AJAX



DRINKING CUPS

Chosen for the Pere Marquette's New Streamliner



For this first completely streamlined train since the war, Pere Marquette selected AJAX, America's Streamlined Paper Drinking Cups. Long the choice of railway management, AJAX offers the perfect wedge shape cup, easy to hold, easy to use; with a variety of flush type and wall surface dispensers.

LOGAN DRINKING CUP CO., Division
Worcester 5, Mass.

U. S. ENVELOPE CO., San Francisco Division
San Francisco 7, California

Divisions of

UNITED STATES ENVELOPE COMPANY
SPRINGFIELD, MASS.

CR-5

AJAX *Paper Drinking Cups*

PANTASOTE UPHOLSTERY — Pantasote's new plastic upholstery adds sparkle and comfort to modern railway interiors.

PANTASOTE CAR CURTAINS—made from two laminated fabrics to prevent wrinkling and to give added strength, longer wear.

PANTASOTE VESTIBULE CURTAINS — for cleaner, brighter, well-protected railway vestibules.

3 PANTASOTE PRODUCTS — each specifically designed for railway uses. That's why Pantasote has been standard on railroads for over half a century. Pantasote Products age well, remain good-looking year after year, and are manufactured in a wide variety of colors and finishes. They're easy to clean, too — just wipe with a damp cloth.

THE PANTASOTE CORPORATION OF NEW JERSEY, 444 Madison Ave., NEW YORK CITY 22

...and on the New PM the Scenery does not FLASH BY...

...IT STAYS PUT BY THE MAGIC OF PHOTOMURALS

Folks used to love a train ride to "see the scenery flash by"... but now in this first streamliner completed these antebellum days ... passengers can still enjoy the flashing scenery ... and also enjoy the beautiful pastorals captured by the Photomural to grace the decorative motif of each car ... thanks to the Pullman-Standard Car Company who designed and built this modern conveyance!

In fact, in most streamliners built by Pullman-Standard the sole decorative theme has been Photomurals by K&F! ... and these trains are considered "tops" in modern transportation.

The application of Photomurals is indeed legion ... and the cost is surprisingly low. Full details are in our new brochure which is yours for the asking.

FREE Without obligation, you may request your copy of our newly printed 24-page brochure on photomurals.

KAUFMANN & FABRY CO., CHICAGO 5, ILL.

Originators & Developers of **PHOTOMURALS**

DUNER WATER CLOSETS

FOR RAILWAY PASSENGER CARS STANDARDIZED PARTS

ECONOMICAL MAINTENANCE

DUNER COMPANY

107 South Clinton St. Chicago 6

ALUMILASTIC

THE ELASTIC METALLIC COMPOUND

TRADE MARK

"ALUMILASTIC", the resilient sealant was selected and used to produce tight corrosion-free joints in the Pere Marquette Railway Company's new Streamlined trains

Manufactured by

THE PARR PAINT AND COLOR COMPANY Cleveland, Ohio

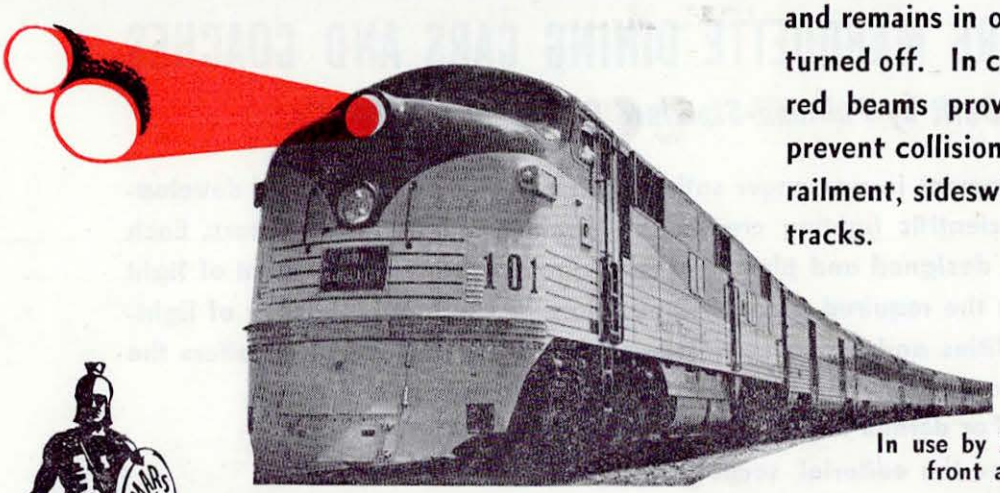
Guarding the lives of millions from coast to coast

mars

THE LIGHT THAT COMMANDS INSTANT ATTENTION

The "Pere Marquettes" first streamlined trains delivered since the war operating between Detroit and Grand Rapids, Michigan are equipped with both front and rear Mars Figure "8" signal lights for the protection of their passengers and to prevent grade crossing accidents.

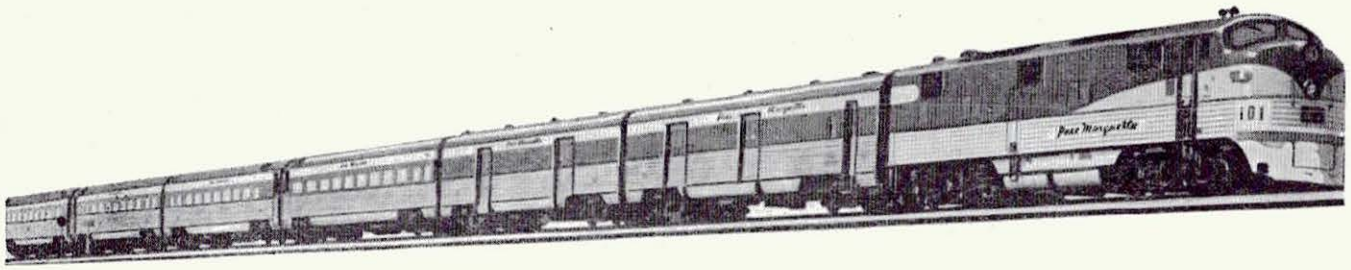
Completely automatic, the Mars light, operating in a horizontal figure 8 plane, goes into action the instant a service or emergency air brake application is made, and remains in operation until manually turned off. In case of danger, its bright red beams provide ample warning to prevent collisions or in the event of derailment, sideswiping by trains on other tracks.



In use by 27 Class I railroads for front and rear protection.

mars SIGNAL LIGHT CO.

5733-41 W. Division St., Chicago 51, Illinois



LUMINATOR SHADOWLESS-GLARELESS LIGHTING ON THE NEW PERE MARQUETTE DINING CARS AND COACHES

Built by Pullman-Standard Car Manufacturing Co.

This achievement in passenger satisfaction embodies all the latest developments in scientific lighting created by Luminator lighting engineers. Each fixture was designed and placed so as to provide a greater amount of light intensity on the required plane without glare or shadow. A variety of lighting possibilities and attractive designing has been achieved that offers the utmost in passenger comfort, safety and interior styling.

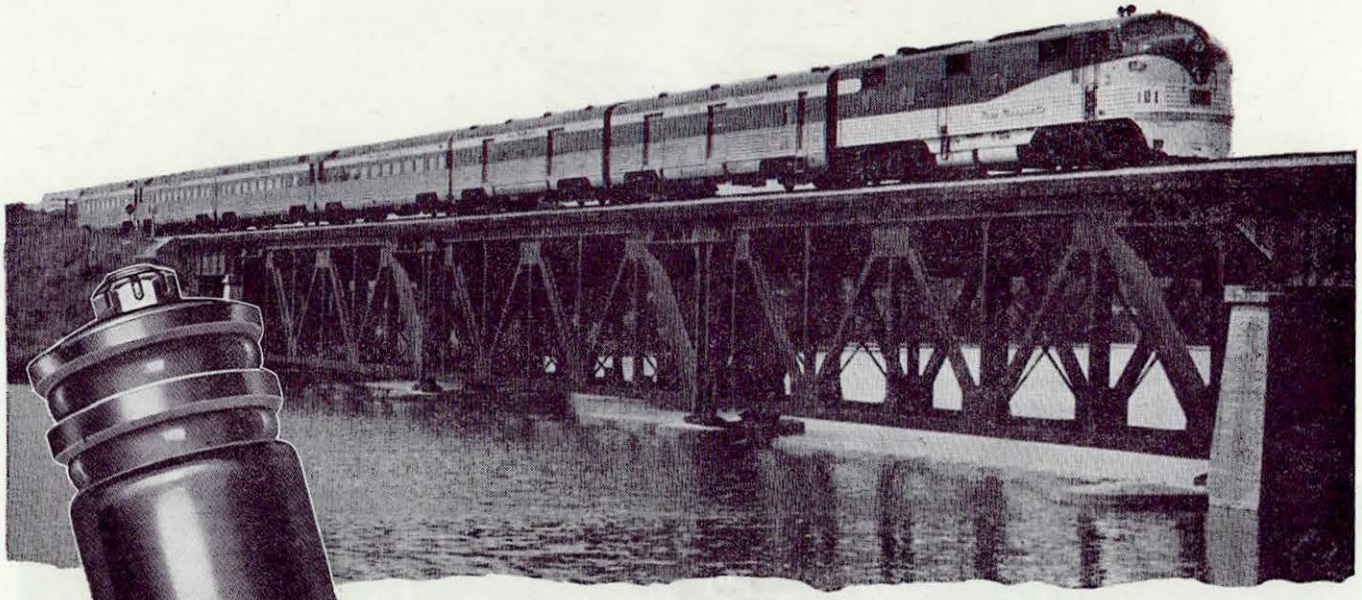
For details about this advanced-type lighting system —see the editorial section of this issue of Railway Age.

LIGHTING ENGINEERS • DESIGNERS • MANUFACTURERS

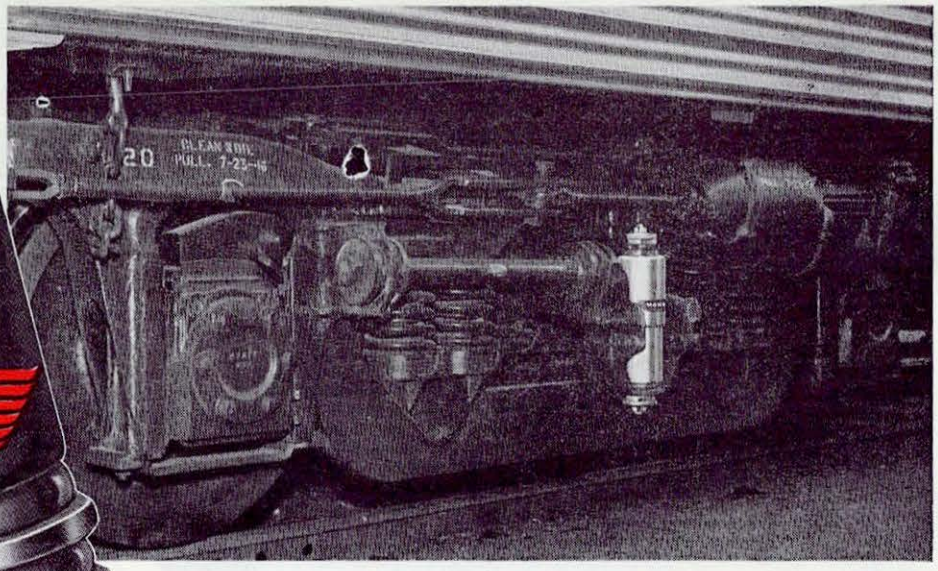
LUMINATOR inc.

120 NORTH PEORIA ST., CHICAGO, ILLINOIS

IN CANADA: RAILWAY AND POWER ENGINEERING CORP



Here's to the Pere Marquette Streamliner...



MONROE
MONROE AUTO EQUIPMENT CO., MONROE, MICH.

RAILWAY SUPPLY DIVISION
CHICAGO OFFICE
3001 Willoughby Tower Bldg.
WASHINGTON, D. C. OFFICE
1028 Connecticut Ave. N. W.

Completely Equipped with . . .

MONROE HYDRAULIC SHOCK ABSORBERS

CONGRATULATIONS TO PERE MARQUETTE on its luxurious, new, Diesel-powered Streamliner, which safely and with more solid passenger comfort than ever before, cuts 40 minutes from the best previous time in crossing the Wolverine State!

Monroe Auto Equipment Company, with 30 years' experience in taking the bumps out of riding, is particularly proud of the fact that this train is completely equipped with both vertical and lateral Monroe Direct-Double-Action Shock Absorbers, built on principles proved over millions of railway car miles.

Monroe engineers immediately available *to work with you too* in your designing of new lighter weight cars or in rehabilitating rolling stock. Write or wire.

MONROE AUTO EQUIPMENT CO., MONROE, MICH.

Plymetl

The material that's making news today

There are many reasons why Haskelite Plymetl has been specified for use in 80% of the new passenger cars now on order. Besides being sound deadening, easily fabricated and applied, its use drastically cuts deadweight. The chart below gives the strength and weight characteristics of Plymetl. It emphasizes the reasons why weight savings as high as 7600 pounds per car may be effected when Plymetl is used for partitions, bulkheads, pier panels, wainscoting and doors.

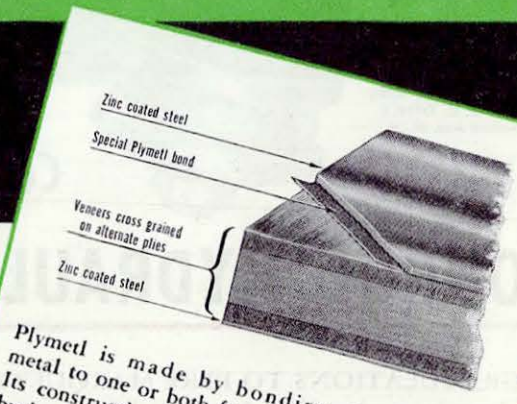
	PLYMETL UVU			STEEL U.S. STD. GAUGES			ALUMINUM B & S STD. GAUGES		
	1/4"	5/16"	3/8"	20 ga.	16 ga.	12 ga.	10 ga.	8 ga.	6 ga.
Weight in lbs. per sq. ft.	1.01	1.17	1.43	1.5	2.5	4.37	1.44	1.81	2.28
Stiffness factor E I in.^{2} lbs.	4,900	8,400	13,200	124	575	3,050	872	1,760	3,500

	PLYMETL EVE			STEEL U.S. STD. GAUGES			ALUMINUM B & S STD. GAUGES		
	1/4"	5/16"	3/8"	20 ga.	16 ga.	12 ga.	10 ga.	8 ga.	6 ga.
Weight in lbs. per sq. ft.	2.25	2.40	2.56	1.5	2.5	4.37	1.44	1.81	2.28
Stiffness factor E I in.^{2} lbs.	17,000	28,000	43,000	124	575	3,050	872	1,760	3,500

Where rigidity is of prime importance consider the following: A 3/8 in. UVU Plymetl panel (aluminum two sides) weighs 1.43 pounds per square foot. The weight of 20 gauge steel is 1.5 pounds per square foot. The Plymetl panel though lighter in weight has 100 times the stiffness of the sheet steel.

It is also true that a 3/8 in. Plymetl panel (UVU) has about the same stiffness factor as 1/4 in. aluminum; yet the 1/4 in. aluminum sheet is 2-1/2 times heavier than the 3/8 in. Plymetl panel.

In computing the values of Plymetl, the following is assumed: (1) The modulus of elasticity of steel, 30,000,000 lbs. per sq. in. (2) The modulus of elasticity of aluminum, 10,000,000 lbs. per sq. in. (3) The modulus of elasticity for the core material, 1,300,000 lbs. per sq. in. along the grain. 65,000 lbs. per sq. in. across the grain. (4) The thickness of steel and aluminum, .021" (27 ga.) and .015", respectively. (5) The weight of plywood plaque, 30 lbs. per cu. ft.



Plymetl is made by bonding thin sheets of metal to one or both faces of a plywood plaque. Its construction effects the most efficient distribution of these materials, combining high strength qualities of the metal surfaces with low density of woods. Result: Plymetl makes an ideal structural material, simulating an I beam with the metal surfaces taking the part of the flanges and the light weight plaque acting as the web.

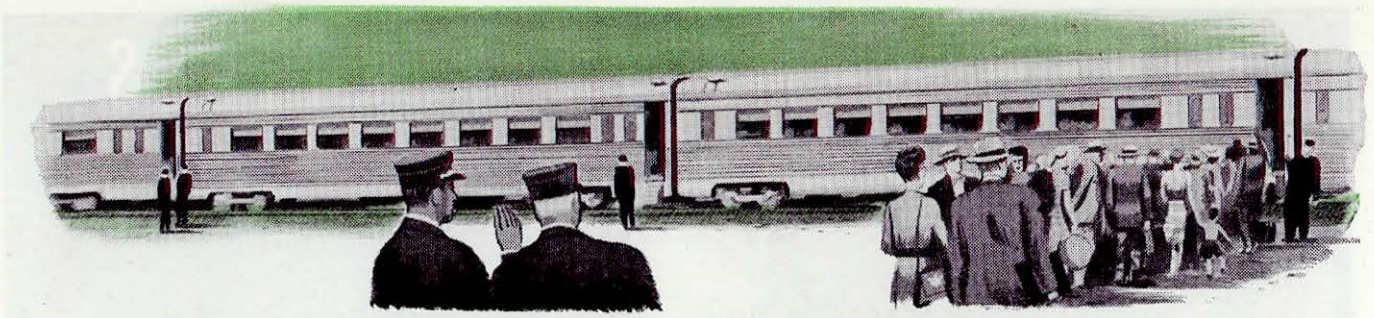
Write for complete data and samples.

HASKELITE

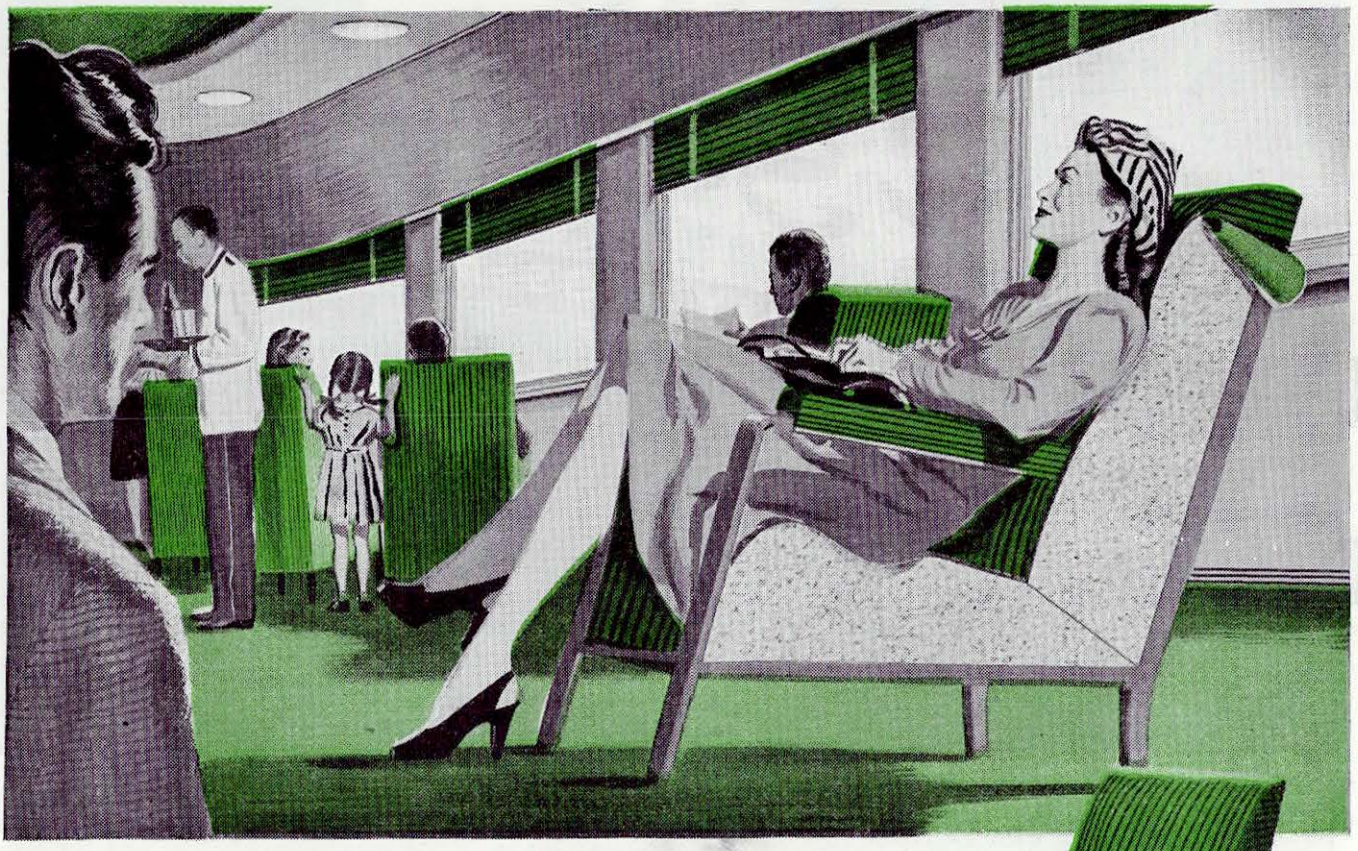
MANUFACTURING CORPORATION

Dept. RR-10, Grand Rapids 2, Mich.

NEW YORK CHICAGO DETROIT CLEVELAND
PHILADELPHIA ST. LOUIS LOS ANGELES
Canada: Railway & Power Engineering Corp. Ltd.



"THEY ALL WANT TO GET ON THE CAR WITH FIRESTONE FOAMEX AND VELON"



Firestone FOAMEX*

for luxurious, air-cooled comfort

Every car is a club car when seats are cushioned with *Foamex*—the air-cooled, air-cleaned material that shields passengers from shock and vibration. *Foamex* is shot through with millions of tiny air-cells of *soft* air and *resilient* rubber latex . . . for deep-cushioned comfort.

Luxury is not enough—so consider *Foamex* upkeep savings! *Foamex* replaces old-fashioned upholstery innards with a one-piece material that never sags or lumps, always billows back to perfect shape. Electronically processed for years longer wear.

Rest your maintenance budget—promote more postwar travel with *Foamex*. Write Firestone, Akron, for your copy of the big full-color booklet, "*Foamex* Cushioning and Mattress Material."

LISTEN TO THE VOICE OF FIRESTONE MONDAY EVENINGS OVER NBC

Firestone *Velon**

for colorful, practical beauty

Dirt, grease, grit can't hurt *Velon's* bright jewel-like colors. One quick wipe of a damp cloth instantly restores its beautiful newness. Plenty of give in *Velon* filaments, yet they never "bag" out of shape. Ask your regular fabric sources. Write Firestone, Akron, for your copy of full-color booklet about *Velon*. *TRADE MARK

A NEW NAME IN TEXTILES

A new name today . . . A great name tomorrow!
As time marches on, the new trade-mark illustrated above will symbolize for you a variety of textile products made *right* in America—designed to merit your continued good-will and maintain the friendly patronage accorded their predecessor, Rosemary.

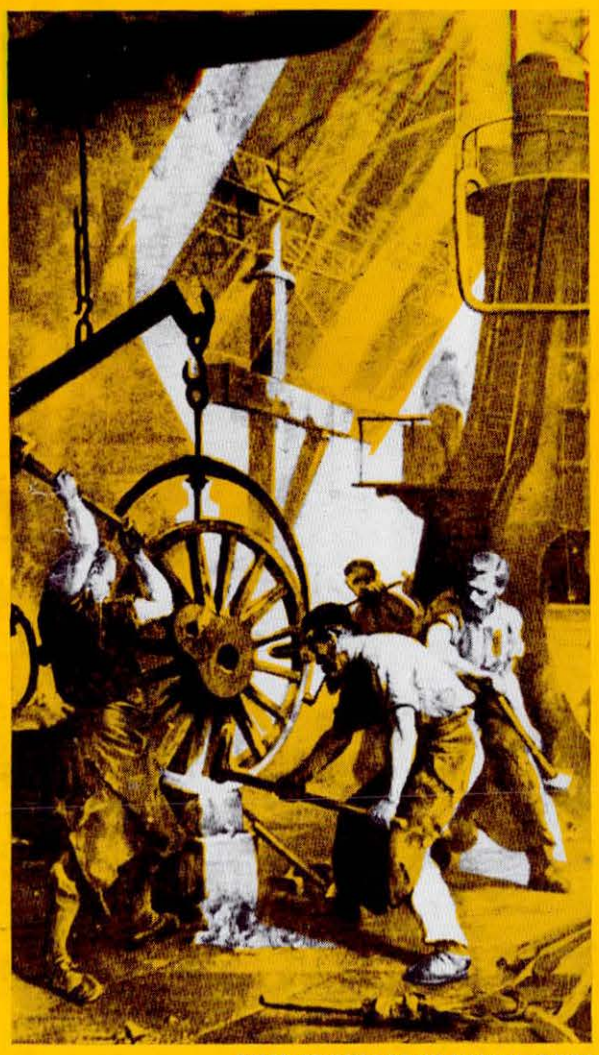
Effective as of September 1st, all Rosemary products will be known and trade-marked as "SIMTEX," and at the same time the name of Rosemary Sales becomes "SIMTEX MILLS."

This new name, "SIMTEX," was chosen in order to combine all merchandise distributed by SIMTEX MILLS under a single designation for better coordination of sales, promotional and marketing activities. In addition, the name SIMTEX MILLS will identify the organization as a Division of the Simmons Company.

SIMTEX products—Tablecloths, Napkins, Damasks, Flannelettes, Decorative and Furniture Fabrics, Mattress Tickings, Bedspreads, Work and Sport Shirts—will be actively publicized and promoted through trade and consumer channels as rapidly as manufacturing facilities make it possible to supply them in substantial quantities.

SIMTEX MILLS
(Formerly Rosemary Sales)
DIVISION OF SIMMONS COMPANY
40 Worth Street, New York 13, N. Y.

When locomotive wheels were forged like this... "STANDARD" was producing 2000 tires a year



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FROM A METAL MAKER'S "FAMILY ALBUM"

Railroading was only 30 years old in 1860, when locomotive wheels were forged like this. Yet even then, Standard Steel was an important supplier to the infant transportation industry. Two or three years before, its new mill was turning out 2000 tires a year.

The tires were made from charcoal blooms, piled, heated and forged into a bar of rectangular section, which was put through a swedging die until the flange was roughly formed. The bar was then reheated, rounded up, scarfed, welded and rolled into a tire.

What a contrast with tire production at Standard Steel today! The modern mill contains three units, each composed of a tire mill with two steam hammers for preliminary operations. In addition to tires, other miscellaneous products of circular form are rolled in practically all sizes, up to a maximum of 12-feet outside diameter. Total capacity approximates 2300 pieces per week.

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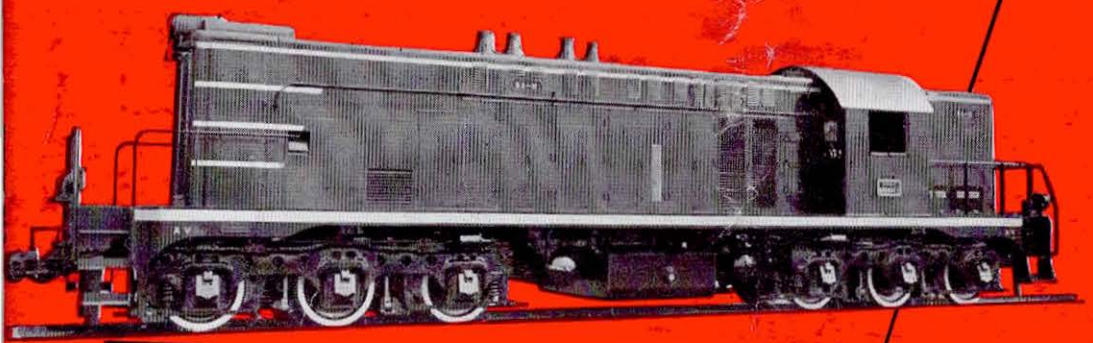
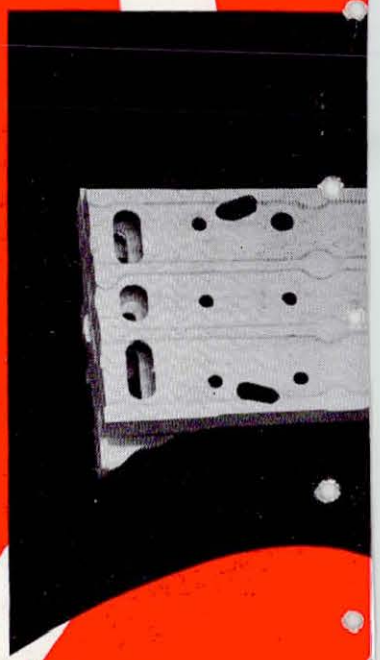
The Baldwin Locomotive Works, Standard Steel Works Division, Burnham, Pa., U.S.A. Offices: Philadelphia, New York, Chicago, St. Louis, Washington, Boston, San Francisco, Cleveland, Detroit, Pittsburgh, Houston, Birmingham, Norfolk.

"STANDARDIZE ON STANDARD" FOR YOUR FORGINGS AND CASTINGS

putting all the pull where it belongs





The high draw-bar pull that Baldwin Diesel-Electric Locomotives deliver is transmitted from trucks to train through an integral cast-steel frame. No wracking stresses come on cab or other equipment. Because of the rigid support provided by this construction, super-structure and equipment preserve their position and alignment, with a consequent saving in maintenance and repairs.

Substantial savings can be made by installing Baldwin Diesel-Electric Locomotives on your property. A representative will be glad to make a survey and estimate at no cost or obligation to you.

THE **BALDWIN-**
LOCOMOTIVE WORKS, PHILADELPHIA

Westinghouse
ELECTRIC CORPORATION, EAST PITTSBURGH, PA.

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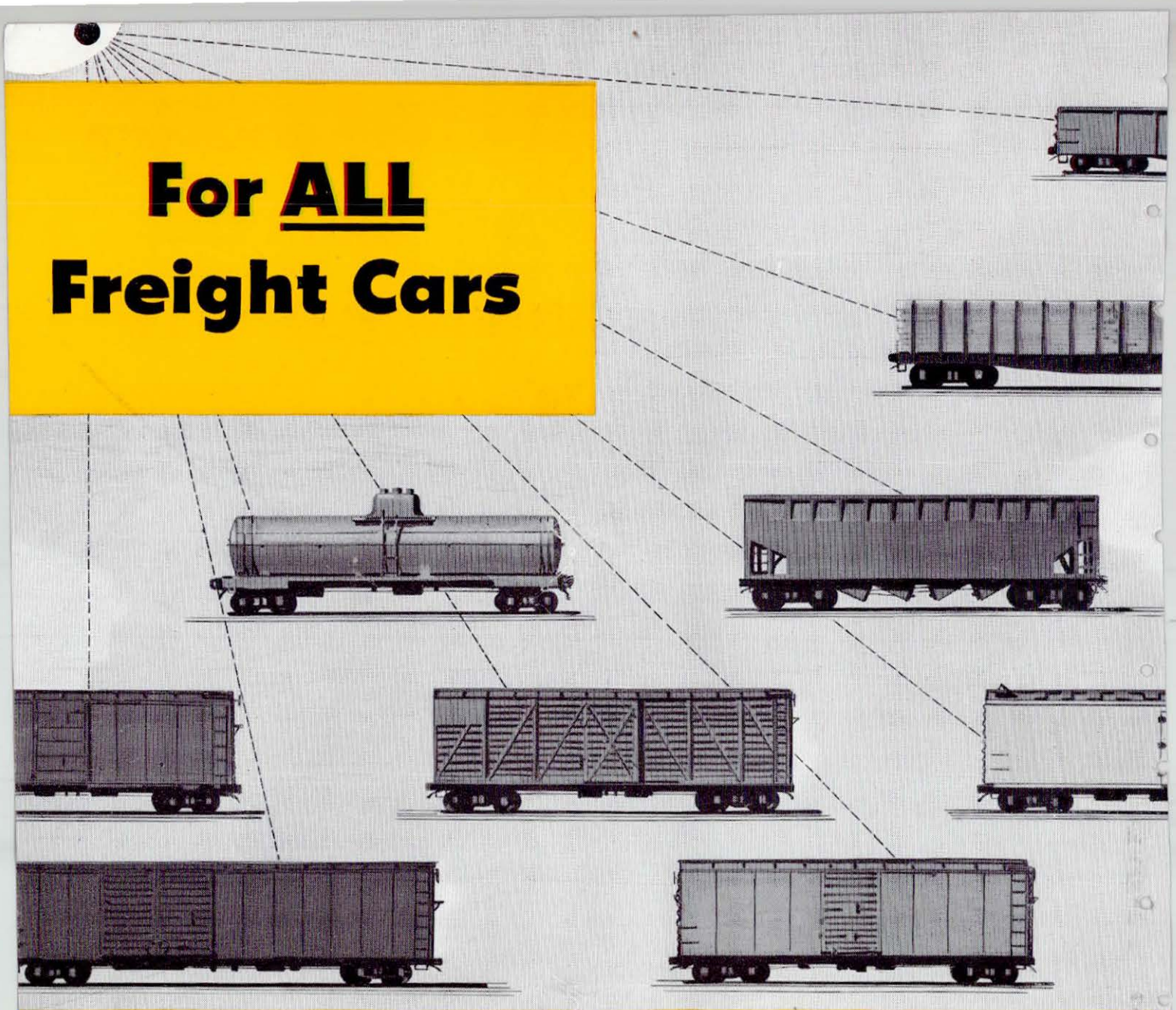

● *Lower lading damage!* That's a very good reason why softer, smoother Ride-Control Trucks are rolling on so *many* roads, today. Protection of pay load helps keep revenue on the rails.

But no less important to profitable railroading is the protection these easy riding trucks give rolling stock and roadbed. From box express to hoppers—on *every* type of car, at *every* load and speed—A.S.F. Ride-Control Trucks are proving themselves an excellent investment in *operating economy.*

Millions of miles of better freight car service have been written into the records for Ride-Control Trucks. Already more than 27,000 car sets are in service or on order for 53 railroads and private car owners.

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NO SPRING PLATES • NO SPRING PLANKS

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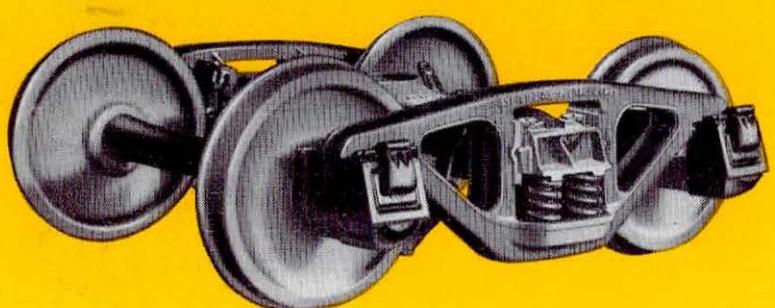

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TAME BUCKING BOXCARS

With the New

SCULLIN L-V TRUCK

LATERAL-VERTICAL CUSHIONED MOTION

Scullin's simple new truck design controls *both* lateral and vertical motion. It takes the side-sway, bounce and lurch out of unruly freight cars. Economical — sturdy — trouble-free — makes high speed safe for lading, cars and track.

One ingenious, built-in assembly provides this complete control. Weight and cost are comparable to conventional trucks. For complete details write:

ARMY NAVY

SCULLIN STEEL CO

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STEEL CASTING MANUFACTURERS SINCE 1899

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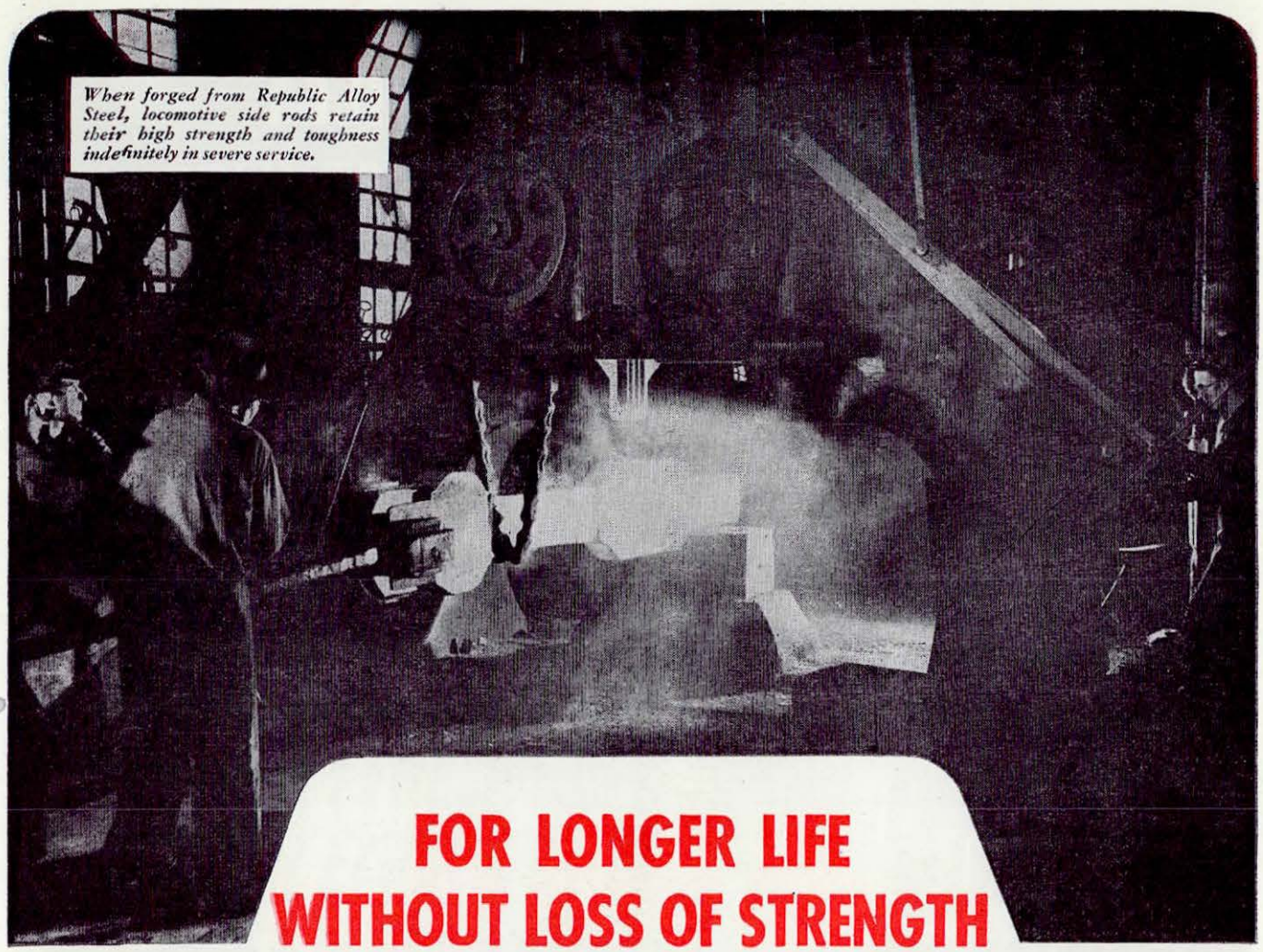

When forged from Republic Alloy Steel, locomotive side rods retain their high strength and toughness indefinitely in severe service.

FOR LONGER LIFE WITHOUT LOSS OF STRENGTH

—no other material can equal ALLOY STEELS

One of the most important reasons why you should use alloy steels for vital parts of locomotives, cars and other equipment is the inherent ability of these steels to retain their original strength under the most severe conditions.

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Alloy steels provide *LASTING* strength to assure year-after-year safety in operating parts—to assure longer life and lower maintenance costs. And, in addition, they afford highest strength-to-weight ratios, uniform hardness, extreme toughness, and resistance to corrosion and high temperatures.

Republic—world's leader in the production of alloy steels—is ready NOW to help you select the most effective and economical analysis for each application. Write us.

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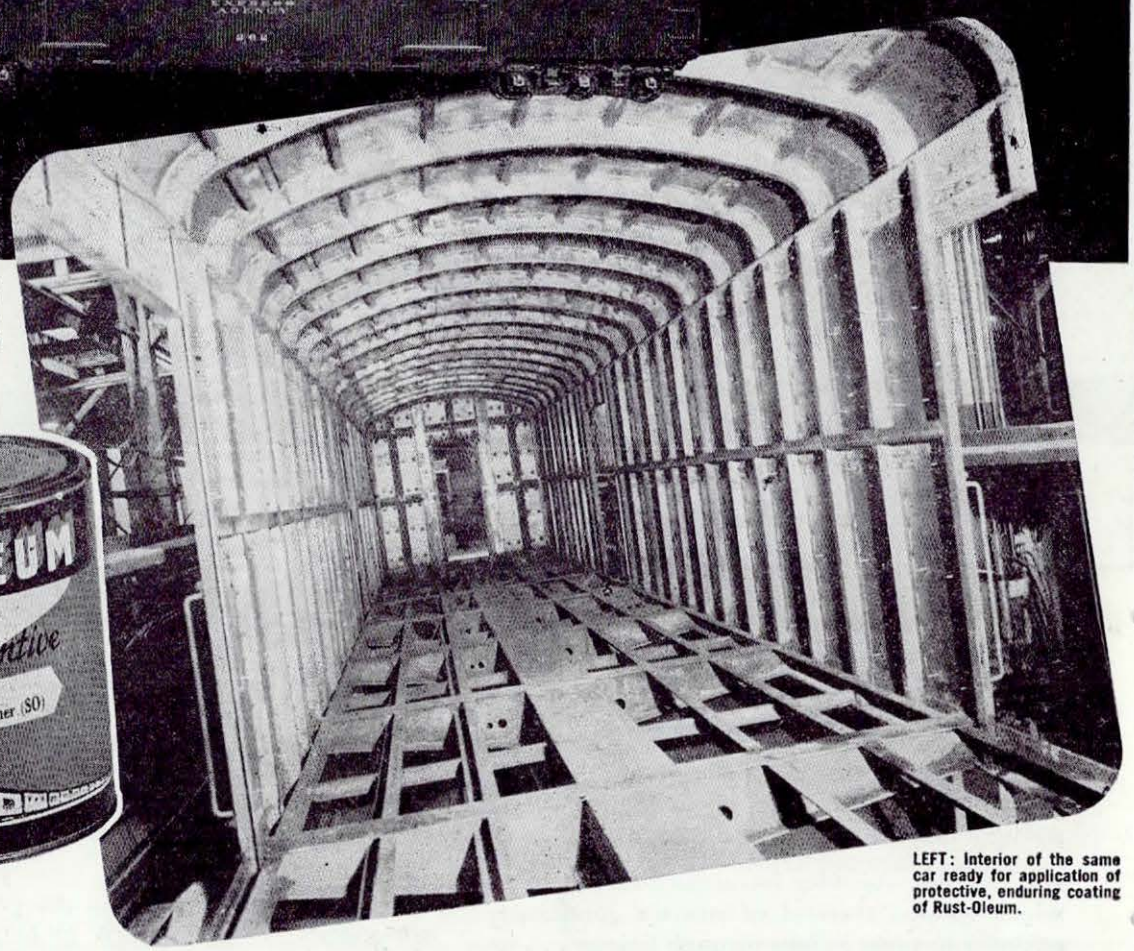
THIS IS HOW THE GREAT NORTHERN STOPS HIDDEN RUST WITH... RUST-OLEUM

ABOVE: Typical Great Northern express car in which Rust-Oleum safeguards hidden surfaces that are normally subject to rust and corrosion.



LEFT: Interior of the same car ready for application of protective, enduring coating of Rust-Oleum.

CHECK THESE FEATURES:

- Apply directly over any rusted surface. Simply wire brush to remove scale, blisters and dirt.
- Rust-Oleum penetrates the remaining rust and spreads an unbroken protective film over all.
- It's easy to apply by brush, dip or spray—saving time, money and labor.
- Excellent coverage . . . Gallons of economy.

In building and re-conditioning this express car, the Great Northern Railroad coated all hidden metal surfaces with RUST-OLEUM—under-frames, posts, liners, inside sheathing, etc. This assures positive protection against acids, water, condensation caused by temperature changes and drippings from perishable ladings.

RUST-OLEUM provides an air-tight, pliable, waterproof coating that *lasts for years*... It does not blister, crack or peel. This means longer service for every car. Repair and Maintenance costs are cut sharply. Nothing equals RUST-OLEUM as an effective, money-saving rust preventive.

Get the facts—NOW! Write today for Catalog 145 for recommended applications.

RUST-OLEUM CORPORATION

2415 Oakton Street Evanston, Illinois

We are equipped to forge

BODY LEVERS UP TO 52½" IN LENGTH

In connection with new cars now in design, remember that Schaefer can forge body levers up to 52½"—can cut lever weight one-third—show more strength than a solid lever—and, by using our *own* pad structure, take care of all intermediate length variations.

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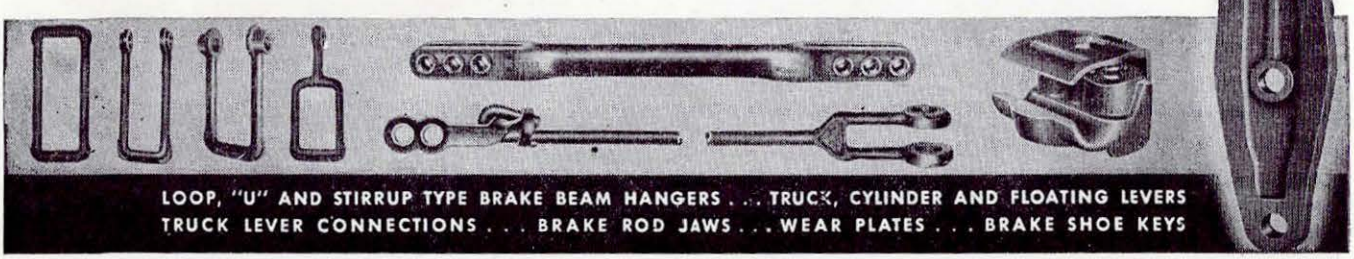
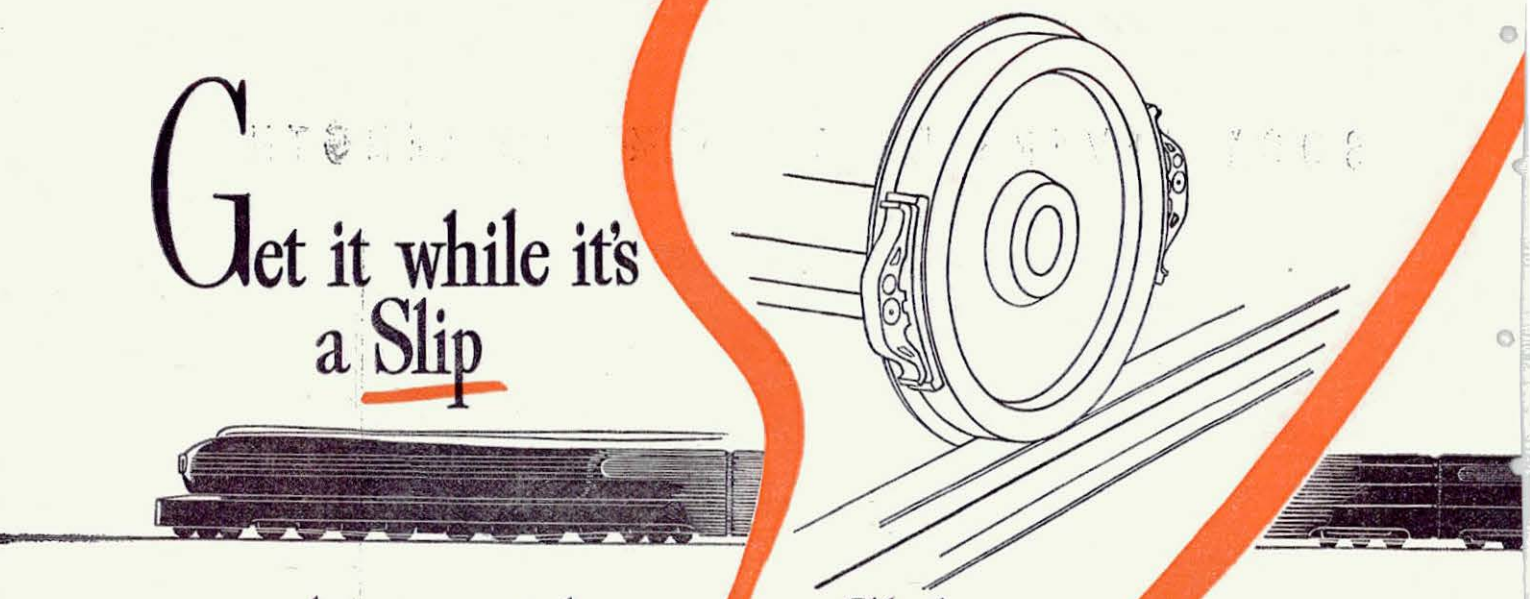


LOOP, "U" AND STIRRUP TYPE BRAKE BEAM HANGERS . . . TRUCK, CYLINDER AND FLOATING LEVERS
TRUCK LEVER CONNECTIONS . . . BRAKE ROD JAWS . . . WEAR PLATES . . . BRAKE SHOE KEYS

Get it while it's a Slip



and it won't become a Slide

The Westinghouse "AP" Mechanical Decelostat does just that when a wheel starts to slip during brake application. The instant that a wheel begins to lose rail adhesion, this constant guardian detects it and momentarily relieves brake pressure on that particular wheel. Thus, the wheel is kept turning and doing its best job of effective retardation under existing conditions.

The "AP" Decelostat becomes even more important with today's higher train speeds, closer schedules, and increased braking forces required to control trains safely. Here, wheel slip detection is doubly imperative, because a slip which develops into a slide means *that* wheel is not doing its best job of retardation. "AP" Decelostat will detect that "slip" and keep the wheel rolling—assuring efficient braking.

To meet the requirements of shorter schedules and higher train speeds, specify these Westinghouse running mates:

"HSC" Electro-Pneumatic Brakes . . . for braking flexibility to match modern train speeds, and unequalled smooth action.

Speed Governor Control . . . for regulating brake forces to wheel speeds.

"AP" Mechanical Decelostat . . . for wheel slip detection to keep the wheels rolling.

Brakes are Basic to Railroad Progress

Westinghouse Air Brake Co.

WILMERDING, PA.

Railway Age

With which are incorporated the Railway Review, the Railway Gazette, and the Railway Age-Gazette. Name registered in U. S. Patent Office.

Vol. 121 September 7, 1946 No. 10

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A luxurious lounge has been added to the special facilities offered by Chicago's Union Station to its women patrons.

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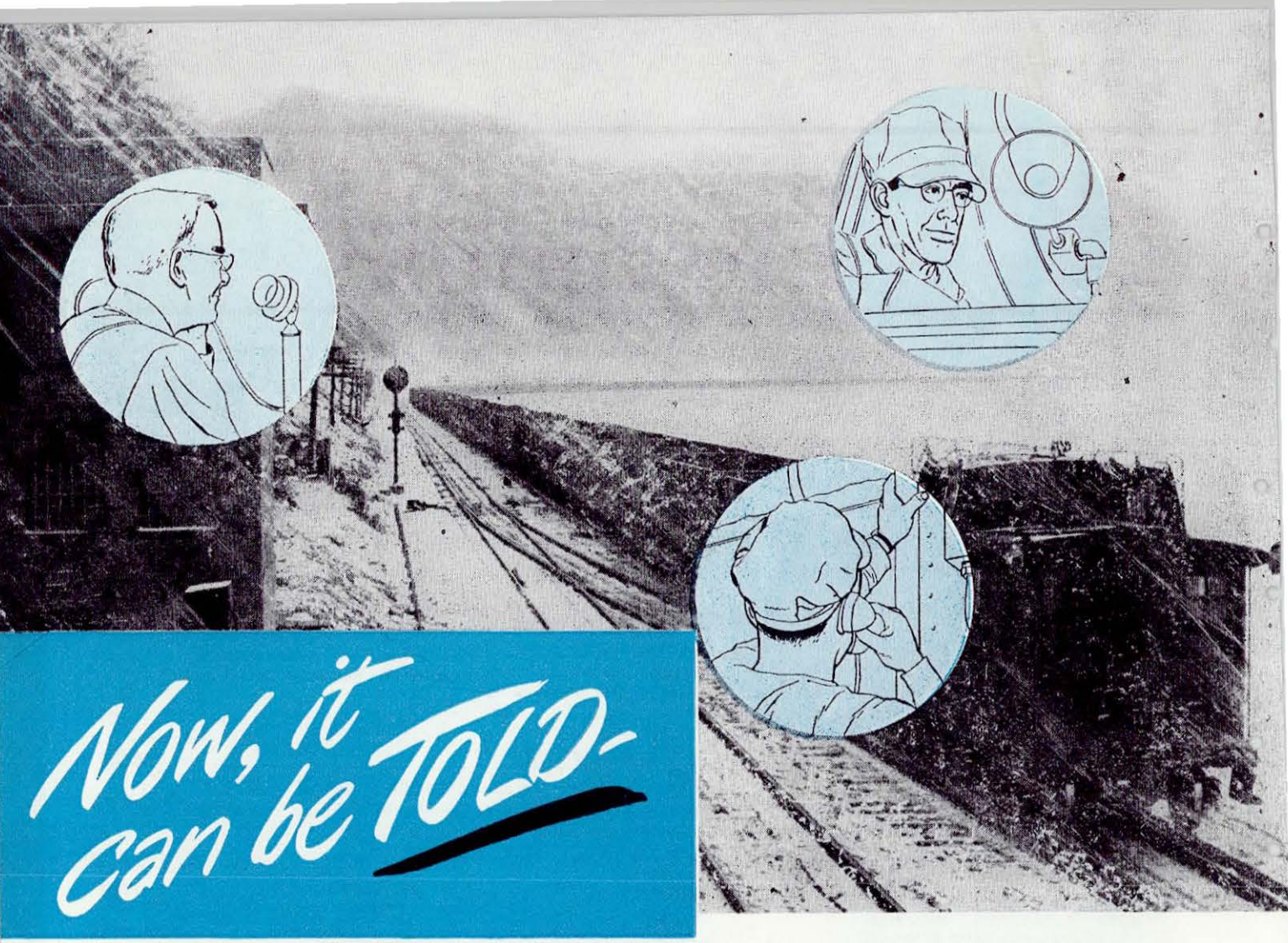

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with "UNION" I.T.C!

Now, when the locomotive is a mile ahead and around a curve, the engineman can be *told* whether his caboose has cleared a crossover or road crossing. Today, when engine trouble develops between stations, the dispatcher can be quickly informed that help is needed. In other cases, steps can be quickly initiated to secure assistance, and to provide the necessary train orders and signal protection to move trains around obstructed sections of track. "Union" Inductive Train Communication is the medium for the *telling*!

You are probably aware of many daily instances where instant voice communication between your enginemen and conductors, between train crews and station operators, and between crews of separate trains, would serve your railroad to distinct advantage. Bulletin 160—yours for the asking—explains even more ways in which it can save time for your trains, coordinate traffic movement, and improve operations.

A request for collaboration between your representatives and ours will constitute no obligation upon you. Just write, or call, your nearest "Union" district sales office.

UNION SWITCH & SIGNAL COMPANY

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UNION I.T.C. THE VOICE OF EXPERIENCE IN TRAIN COMMUNICATION

The Week at a Glance

A NAIVE CONCLUSION: For well over half a century the Interstate Commerce Commission has been in the business of regulating the railroads. It has a very large staff of civil servants, including not a few practiced collectors, compilers and interpreters of figures. It has spacious files packed with reports, old and current, from every railroad on every conceivable technical and financial subject even remotely connected with that business. It has ready access to the voluminous records and the gratuitous advice of all the other government agencies that participate directly or surreptitiously in the regulation, regimentation or restriction of American industry and commerce. It has spent weeks taking testimony from railroads and shippers and others interested in the maintenance of an efficient and reasonably healthy transportation system, all to the effect that the railroads need increased revenues to match their increased expenses. It has before it now, and has had since last spring, the railroads' application for authority to increase freight rates. An innocent observer might imagine that a commission so fortified with data and experience would be ready, willing and able to take some action upon that application.

●

BEHIND THE VENEER: But the commission is not ready to perform its duty. It has found new opportunities for delay, new excuses for demanding more figures from the railroads. Estimates of future earnings can be based on past experience and present conditions, or they can be based on guesses as to what changes may occur in those conditions. When it comes to guessing, the commission's record has not been spectacularly good, and it is understandable that it may prefer this time to shift the onus elsewhere. But can any more dependable prediction as to the future be made when the additional figures and guesses are submitted than can be made now? This issue's leading editorial points out that the conclusion is inescapable that there is another reason for this further costly delay than the commission's need for more data. That reason, not at all to the commission's credit, is its fear that it will be criticized if the railroads make a profit.

●

EVIDENCE: If the commission needs figures to support an order effecting a rate increase it should not overlook the seven-months income data (reported in the news pages this week). During that period no less than 62 Class I railroads—in a time when traffic, generally speaking, has been of record-breaking peace-time proportions—failed to earn their interest charges and rentals.

●

TELEPHONE TECHNIQUE: Undertaken with the idea that the adequacy of telephone facilities and the manner in which they are used by employees can mean the difference between a disgruntled customer and a satisfied one, the New York Central's program of analysis of and instruction in telephone service has been under way long enough for its effectiveness to be determined. As outlined in a feature article this week, one part of the analytical phase of the program amounts to a study of the facilities of an office with an eye to their convenience and most efficient placement, the result often being a suggested rearrangement of the office layout or proposals for a different type of decoration or lighting. Another application of the analytical method is in "Mirrophone" recordings of conversations of employees. These have been useful in demonstrating faulty telephone technique and bringing about its correction.

●

NEWEST TRAINS: On August 10 the Pere Marquette inaugurated the first all-new post-war streamliners, the subject of an illustrated feature article in this issue. On week days each of the two seven-car Diesel-powered trains makes three 152-mile runs over the line between Detroit and Grand Rapids. Coach seats are reserved in advance; reservations may be taken up and tickets purchased on the train; a reading light under the passenger's control is provided for each seat; chairs are adjustable to ten positions—these are a few of the features intended to appeal to travelers who might use other forms of transportation if the railroad neglected the opportunity to provide fast schedules and attractive equipment as well as the safety, luxury and convenience the public demands.

●

COLOR AND COMFORT: The new "Pere Marquettes" have four coaches, a dining car and two head-end cars, all built by Pullman-Standard and finished in maize and blue and stainless steel. Their rubber-insulated, roller bearing trucks have both lateral and vertical shock-absorbing devices. The dining cars have air-conditioned windowless kitchens, centrally located, and their two seating sections have vibrationless tables for two and four persons set at angles for smoother service. The 2,000-hp. locomotives were built by Electro-Motive. Capable of a top speed of 117 m.p.h., they are designed to take curves easily and safely. The sound-proofed cabs have two-way radio and wired telephone equipment so communication can be maintained with crew members throughout the train and with wayside radio stations.

●

PUNITIVE PER DIEM: Colonel Johnson has come along with a new idea to produce more transportation from the available supply of freight cars, that is, a $2 per diem charge, to be effective while there is a car shortage. At least he has asked the commission to look into the feasibility of such a charge, and the commission is soliciting comments on the proposal, as our news columns report. If the commission is as deliberate in its consideration of this proposition as it has been—and continues to be—in its disposition of the freight rate case, there would appear to be at least a sporting chance that the car shortage may disappear before it arrives at any decision. And meanwhile the short lines have on file a protest against even the current $1.15 charge.

RUGS AND DRAPES: Recognizing that station facilities must equal in color and comfort and modernity the new trains that are being designed and built, the management of Chicago's Union Station has expended no little care and consideration in planning new lounge facilities for women patrons that match in luxury and good taste the accommodations of outstanding hotels and clubs. No longer are cold stone floors, hard wooden benches and funereal lighting inevitable characteristics of railway station architecture. The significant step toward the provision of appropriate and modern conveniences and comforts which has been taken at Chicago is reported in the illustrated article on page 408.

●

AXLE PLANT: Improvements recently completed at Bethlehem Steel's Johnstown axle plant are illustrated on page 406. New equipment added includes a continuous rotary-hearth heating furnace with a capacity of 25 tons per hour, gas-fired pits for control-cooling of forgings, and an axle straightener which accomplishes its function in a single revolution of the part on the anvil. Two automatic gas-fired furnaces are provided for heat treatment of alloy steel axles and special forgings.

●

USES FOR OLD RAIL: Rail no longer suitable for regular track service is a source of high quality steel in a form easily convertible into small bars and shapes, and for that reason the railroads find the demand is keen for this by-product of maintenance and improvement work. On the average, over half a million tons of used rail go each year to the rail steel mills, a volume of business that runs into the millions of dollars, as is pointed out in one of our articles.

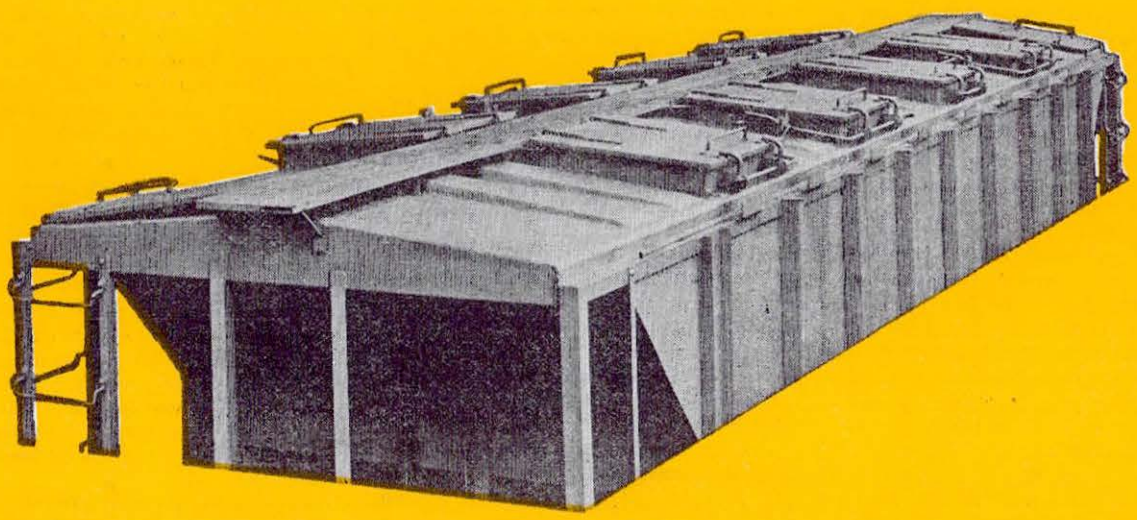
●

PRODUCTION PROGRESS: Despite difficulties in obtaining materials and specialties, Pullman-Standard has delivered 153 stainless steel reclining seat coaches to the New York Central within a year, which is hailed as something of a record for deliveries to a single railroad. The first post-war sleeping cars to be produced in that builder's plant are now under way. Altogether 61 passenger cars were manufactured in July, says the Civilian Production Administration. This was a slight change for the better from June, but still is small potatoes compared to the reported backlog of orders for 2,540 passenger-train cars for domestic railroads.

●

NOTED IN THE NEWS: More Chicago-California streamliner service is scheduled, come fall, and a new daily train on the Golden State route. . . . American Steel Foundries has a color-sound movie showing the functioning of its ride-control freight car trucks in actual service. . . . President Clement of the Pennsylvania has been awarded the Franklin Institute's Vermilye medal. . . . A strike of truck drivers in New York and nearby New Jersey has tangled up freight movement in that region. . . . Export freight has been embargoed.

"STANDARD"



ROOFS FOR HOPPER CARS

"STANDARD" RIVETED OR WELDED DESIGNS ARE THE UTMOST IN WEATHERPROOFING, STRENGTH, RIGIDITY AND SIMPLICITY IN ASSEMBLY.

THESE ROOFS ARE DESIGNED TO LAST THE LIFE OF THE CAR.

STANDARD RAILWAY EQUIPMENT MFG. COMPANY

HAMMOND, INDIANA

WORKS: HAMMOND, INDIANA — NEW KENSINGTON, PA.

CHICAGO OFFICE—310 S. MICHIGAN AVE.

RAILWAY AGE

Commission's Paltering Threatens Disaster

The worst threat to the nation's prosperity presented by the transportation situation is not the shortage of railroad capacity that exists now—although that is serious enough—but the shortage of railroad capacity that will exist for years if high-level construction and production continue and the Interstate Commerce Commission does not soon reverse its present attitude. Government policy, especially that of the Commission, has been creating the present shortage of railway facilities for at least 15 years; and only a reversal of present government policy can remedy the situation created by past government policy.

Fears It Will Be Generous

The Commission has been holding hearings regarding advances in freight rates ever since early last spring. Now the Commission has ordered the railways to furnish it estimates of their traffic, earnings, operating expenses, taxes, net operating income and net income in the years 1946 and 1947. Its ostensible purpose is to use these estimates to determine how large an increase in freight rates in addition to the six per cent already authorized would be reasonable. Its real purpose is to use the estimates to avoid authorization of an increase in rates that would enable the railways to earn too much net operating income. Always the Commission has been obsessed with the fear that it would be criticized for letting the railways earn too much. In consequence, it has almost never let them earn enough. And this is the principal reason for the present inadequacy of railroad capacity.

The order requiring the railways to make the estimates mentioned raises two questions. First, how can they estimate with even approximate accuracy how much traffic they will have in 1947? Second, how can they estimate with approximate accuracy how much their operating expenses and taxes will be?

The total volume of traffic available for all carriers is determined by the amount of construction and production done by other industries. Most of these other industries are complaining that their output is being restricted by policies applied to them by O. P. A. and other government agencies. They cannot foretell what their output will be, because they cannot foretell the effects of these government policies. But how can the railways foretell their traffic when other industries cannot foretell their output?

Furthermore, how traffic will be divided between the different kinds of carriers will be largely determined by government policies the effects of which the railways cannot foresee.

Likewise, the operating expenses of the railways will be determined not only (a) by the amount of traffic they handle, (b) by whether their costs of labor and materials increase further, and (c) by whether they can get enough labor and materials, but also (d) by whether the Commission authorizes freight rates high enough to allow adequate expenditures for maintenance to be made. The railways have reported that they made $153 million net operating income in the first six months of 1946 and $38 million in June. But the net operating income reported as earned was largely "phony." Owing to the advances in wages made and the condition of their properties, the railways should have increased their expenditures for maintenance in the first half of 1946. But, because of deficits being incurred due to huge increases in unit costs unaccompanied by advances in rates, they actually reduced their expenditures for maintenance. After eliminating charges for amortization of defense projects, total expenditures for maintenance were over $47 million less in the first half of 1946 than in the first half of 1945, and over $21 million less in June, 1946, than in June, 1945. That is, the Commission's policy of regulation has thus far this year caused reductions in operating expenses that should not have been made; and the same policy of regulation will continue to cause them as long as it continues.

Able to Do Its Own Estimating

On what assumption, then, does the Commission want estimates of future operating expenses to be based? On the assumption that the Commission intends to authorize advances in rates sufficient to enable the railways to maintain, rehabilitate, improve and expand their properties in accordance with national needs? Or

on the assumption that, because of indefinite continuance of the policy that the Commission has followed thus far in 1946, the railways must go on making retrenchments the continuance of which would increase the present already dangerous shortage of transportation?

The Commission has been in existence almost 60 years. It has had complete authority over railway rates, and, therefore, over railway profits, for almost 40 years. Has it or has it not throughout these years been accumulating knowledge regarding the railroads, supplementing the testimony it has been taking for months in the pending rate case? Or is it not, after all, the "expert body" that it is cracked up to be? The Commission and members of its staff, if they are fit for their jobs, can estimate now better than anybody else, *on the basis of present trends of traffic and operating costs,* how much net operating income the railways will need in future and what rates they will require in order to earn it. And nobody could rationally estimate future traffic and operating costs on any basis excepting present trends of traffic and operating costs. Why, then, while the transportation situation grows steadily worse, does the Commission continue fiddling and procrastinating and asking others to provide it with crystal balls for appraising the future?

Misdirected Concern

No industry can claim with the slightest justification that it cannot afford to pay its share of the increase in freight rates that the railways need. Other industries are crying "Bloody murder!" about inadequate price increases given them by O. P. A., although according to the government's Bureau of Labor Statistics the wholesale prices of all commodities now average 40 per cent higher than in 1940, whereas freight rates, until the recent advance averaging 6 per cent, were on the same basis as in 1940. The Commission delays, and delays, and delays, because it views with terror the prospect that it might, in a moment of inadvertence, do something that will let the railways earn a few dollars too much. But apparently its policy of restricting them to a net operating income that is currently at least a half billion dollars a year too small causes it no concern at all!

The only excuse that the Commission apparently could offer for asking the railways to estimate the future for it now is that the Commission has itself heretofore done such a poor job of estimating the future. In the rate case in 1931 it refused to authorize advances because, in its expressed opinion, the depression conditions then existing were only temporary. A few years later it completely reversed itself and began making plans for the reorganization of bankrupt railroads based upon the apparent assumption that the depression would last forever. Its prognosis in this instance also having been proved wrong, it seems disposed now to reverse itself again and proceed upon the assumption that all is going to be well with the railways regardless of the rates that they are allowed to collect. Anything to avoid the possible mistake of letting them earn a nickel too much!

The Commission is supposed to be an "expert body"; but there is mighty little in its record to support the supposition. It is expressly charged by the law it administers to so regulate the railways as to keep them in full strength and vigor; but it has done a great deal less than nothing within the past 15 years to discharge that duty and responsibility. The way it is handling the rate case would make its "expertness" look like a joke if the consequences portended by its procrastinations and ineptitude did not constitute such a threat to the railways and the nation in a post-war period fraught with such possibilities of prosperity or disaster.

Scrap Shortage Plagues American Industry

The ingenuity and effort put forth by the railroads and other industry during the war in the collection of scrap metals as an aid to the maximum production of steel is still needed in peace-time. The railways are normally among the largest users of steel; consequently they are among the largest sellers of scrap metal. On January 1, 1938, the Class I railways had scrap on hand and in the process of being shipped valued at more than $13,106,000, representing 3.4 per cent of the total inventory of materials and supplies maintained by the roads. During 1942 and 1943 extensive scrap drives vigorously pushed by all railroads had reduced the average monthly scrap inventory to less than $9,780,000, or 1.9 per cent of the average total inventory.

The end of the war did not bring about any appreciable slackening in the collection of scrap on the part of the railways, as evidenced by monthly scrap inventories for 1945, averaging $11,121,000, or 1.8 per cent of the total monthly inventory. This represents a decrease of 15 per cent from the January 1, 1938, scrap balance and a drop of 47 per cent in the monthly scrap-inventory ratio.

Despite these efforts in housecleaning, scrap still remains a critical item. This situation is attributed to the tremendous amount of scrap exported prior to the war, the large amount of war equipment shipped out of the country which has not been returned, and the slowing down of industrial activities which normally produce 40 per cent of the country's scrap supply.

The present acute scrap shortage has brought forth the accusation that scrap dealers and some industries are withholding scrap from the market in anticipation of higher prices and more lenient classification. Whether this criticism be justified or not, a look at the record quickly reveals that the American railroads cannot be included among those blamed.

Nevertheless, there still remain many ways in which the railroads can aid the current drive. There is need for further intensive surveys to determine the necessity of retaining minimum-traffic branch lines and industrial tracks, not only with a view to reducing operating losses, but to securing sorely needed scrap to keep the steel mills operating at capacity. Study by system and local division officers of all idle or seldom used equipment and facilities would be helpful. Every employee in the shop and on the track could contribute by uncovering and recovering an angle bar here, a brake shoe there, or a

tie plate or a broken or obsolete part, no matter how small.

Because of material shortages, the railroads reclaimed many items during the war that they would not be justified in reclaiming under normal conditions. Their record in this respect is probably unsurpassed by any other industry, and the results proved highly beneficial. Now, however, in view of the acute scrap shortage and the money derived from the sale of scrap, as well as the help it will afford the steel mills and the entire nation, it might well be that the railroads could eliminate some of the items they are now reclaiming, especially those which, because of the high cost of reclaiming and their obsolescence, do not warrant being salvaged.

Getting Perishable Traffic

The perishable traffic, which represents a sizable portion of the revenue of many railways, is particularly susceptible to movement by other forms of transportation. It is high-paying traffic and some phases of it are extremely profitable. It is toward this profitable business that competitors direct most of their efforts and it therefore is more likely to be lost by the railways.

Competition for perishable traffic is met with from coastwise steamers, from trucks and, particularly since the war, from airplanes. Certain classes of Florida fruits and perishables are trucked from the growing fields to Jacksonville or Miami and shipped in refrigerated steamers to New York. "Gypsy" truckers offer a particularly dangerous type of competition for perishable traffic, since they go into the fields in large numbers and buy up truckloads of certain crops, take them to consuming centers and market them there.

Just before the war curtailed these activities of the gypsies, the regularly established truck lines, as well as the merchants in various cities, were becoming acutely aware of the gypsy truck business, about which the railways had been painfully conscious for some time. It was small solace to the railways that their predictions about the trend of this kind of business proved correct, because they lost a great deal of traffic in proving their accuracy as forecasters. It seems likely, however, that from now on all of the established agencies in the business of transporting and selling perishables will be united in meeting the challenge of the gypsy type of operation.

A great many claims have been made by the airplane companies as to their ability to handle limitless quantities of perishable traffic. These claims are doubtless exaggerated. Nevertheless, rivals for the perishable business do not have to take it all or even a large percentage of it, to make what is left on the railroads a rather poor-paying business. What might happen would be for the railroads to be left with only such part of the traffic as is unprofitable for them and their competitors alike.

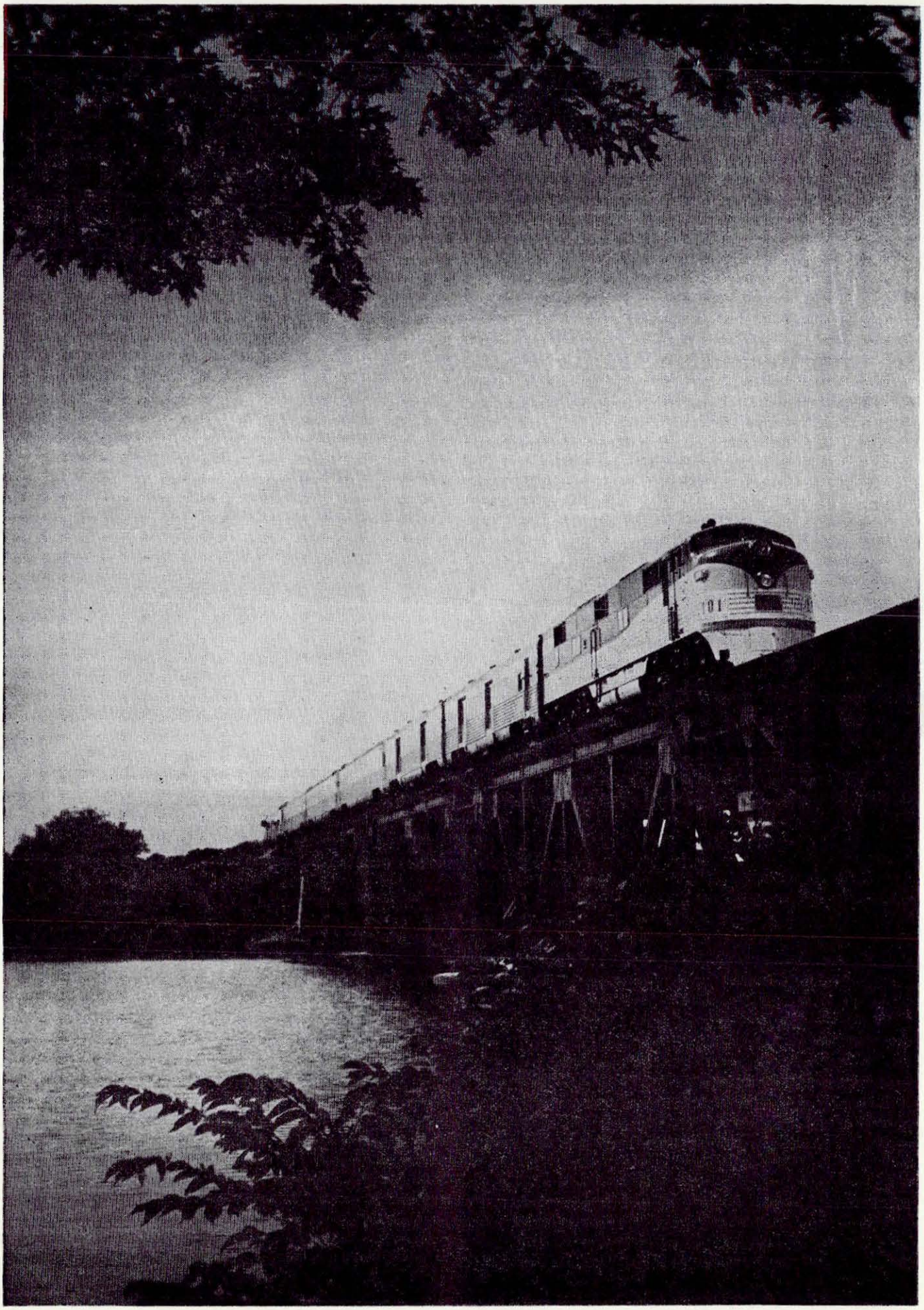
One of the first steps to be taken to hold onto perishable traffic is to provide an adequate supply of refrigerator cars. Since the war the railways have been unable to do this, but recent orders placed for several thousand cars should meet the deficiency. Various growers associations have been clamoring for decreases in rates, the latest being the International Apple Association, which wants the rates on apples slashed immediately. Proper rates to be charged for the movement of perishables can be determined only after most complicated and difficult studies, but the time has come when such studies should be made to determine what, if any, reductions should and can be made by the railways in rates on perishables. Another problem is, of course, the tremendously heavy damage claims on this class of freight. Such claims have been increasing at an alarming rate for the past three years, and if this traffic is to be profitable, then ways and means must be found for reducing the ratio of claim payments to the revenues received.

The matter of scheduling also needs careful examination. There are few commodities for which fast movement means so much as it does for perishables. In this respect the railways have a distinct advantage over the truck lines on long hauls, but they must seek to increase their advantage in speed in order to retain a larger share of the business.

Lightweight Freight Cars Formalized

In its report at the annual meeting of the Mechanical Division of the Association of American Railroads, held at Chicago during the first week in August, the Car Construction Committee advanced the cause of weight reduction in freight cars by its proposal of designs for a 50-ton box car, a 50-ton fixed-end gondola car, and 50-ton and 70-ton hopper cars—in which advantage can be taken of high-strength low-alloy steels and welded construction to reduce weight substantially below that of present A. A. R. standard designs for similar cars. The committee proposes that these designs be submitted to letter ballot for adoption as alternate standards of the association. The approximate weight savings of 5,200 lb. for the box car, 6,200 lb. for the gondola, and 2,500 lb. and 2,600 lb. for the 50-ton and 70-ton hoppers, respectively, represent about the limit which can be attained within the permissible spread of empty and loaded braking ratios of a single-capacity brake. Indeed, the weights of the 50- and 70-ton hoppers have been brought slightly below these limits.

These designs will scarcely satisfy those railroads already using the empty-and-load brake on relatively much lighter cars or which may ultimately wish to employ the new load-compensating brake, which received its first public showing at the Illinois Central Station at Chicago during the Mechanical Division meeting, when it becomes available for service. They need not, however, discourage those railroads that wish more fully to utilize the demonstrated weight-saving possibilities of the high-strength materials. The proposed standards, by the very nature of the process by which they were developed, represent an accommodation of ideas which approach the least common denominator rather than the most advanced of the ideas now current. If adopted, however, they will represent a fairly wide, if not deep, acceptance of high-strength steels in freight-car construction.



Rolling Through Michigan

The "Pere Marquettes" attract much attention and favorable comment as they are inaugurated on fast runs

IN May, 1934, the economy of the United States was in a condition of creeping paralysis, and this was especially true of railway passenger traffic, which had been on the downgrade steadily even during the prosperous 'Twenties and which was rapidly approaching the vanishing point in 1934. Those who were studying the situation could find little ground for optimism, with the possible exception that the Union Pacific and the Burlington — gambling greatly — each had purchased a new light-weight streamlined train. The managements of these two railways felt that, in these new trains, they had the means for revivifying public interest in riding the railways.

Crowds Gather

The fact that they were right was soon clearly demonstrated to those who were aboard the Burlington's "Pioneer Zephyr" on its memorable non-stop run from Denver to Chicago. The crowds that were in evidence in the very early morning hours in Denver to watch the train go by were an encouraging sign, but when it passed a lonely mesa in thinly-populated Eastern Colorado that was literally black with people at 7 o'clock in the morning there was indisputable evidence that the old public interest in watching the trains go by was by no means dead.

Twelve years later when, on August 6, 1946, the new "Pere Marquette" made its first pre-inaugural run from Grand Rapids, Mich., to Detroit, the same scenes were repeated. City dwellers turned out in large numbers in Grand Rapids and Lansing, and likewise in Detroit, to watch this first all-new post-war streamliner go by. The smaller towns supplied their quota of on-lookers, as did the farms in the open country. Even among the newspaper men aboard there was a discernible sense of the pleasurable excitement of taking a train ride.

A description follows of the mechanical features of these new twin trains of the Pere Marquette, which is one of the companion lines of the Chesapeake & Ohio System, but the big news is really that the public is by no means tired of watching the trains go by and that the fascination of looking at or riding on trains at high speeds is still present and can be turned into profit by railways farsighted enough to supply the type of service in colorful trains that the public wants.

The interest displayed was repeated in the other three pre-inaugural runs. Following the newspaper trip and the christening ceremonies at Fort Street Union Station in Detroit on August 6, business men of Detroit made a run on the train on August 7; business men of Grand Rapids on August 8, and state officers and Lansing, Mich., business men on August 9.

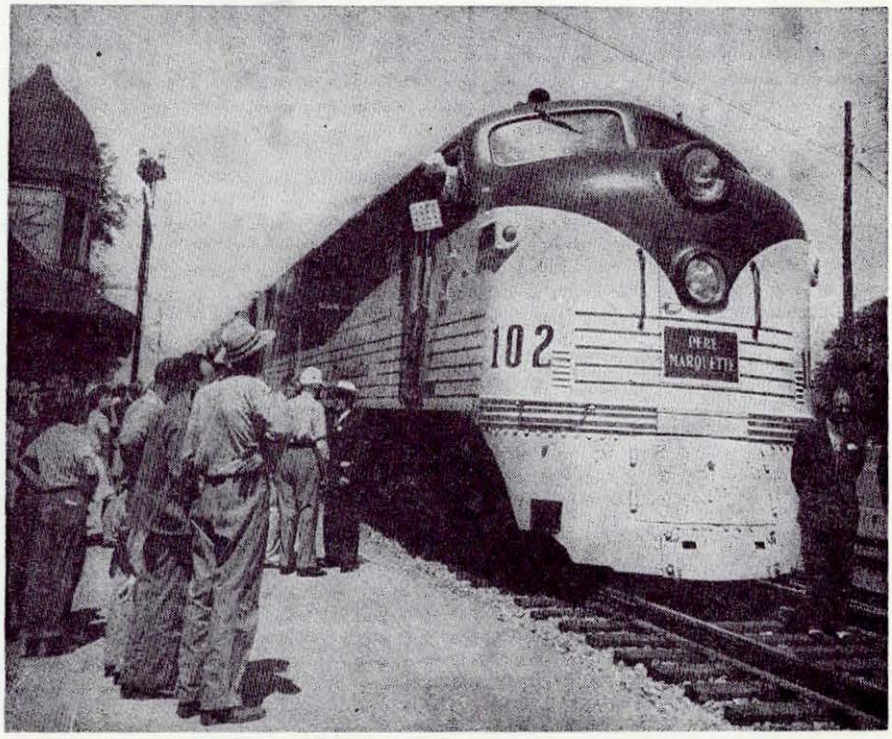
Further interest was displayed in several public exhibitions of the trains in Detroit, Lansing and Grand Rapids.

On August 10 the trains were put into regular service, making the 152-mile run in 2 hr. and 40 min. on their morning and evening runs from both terminals, with stops at Plymouth and Lansing in both directions. The mid-day runs in each direction are made in three hours and stops are made on these runs at eight intermediate stations. The 2 hr. and 40 min. runs are on a schedule 40 min. less than the best previous schedule between the two cities.

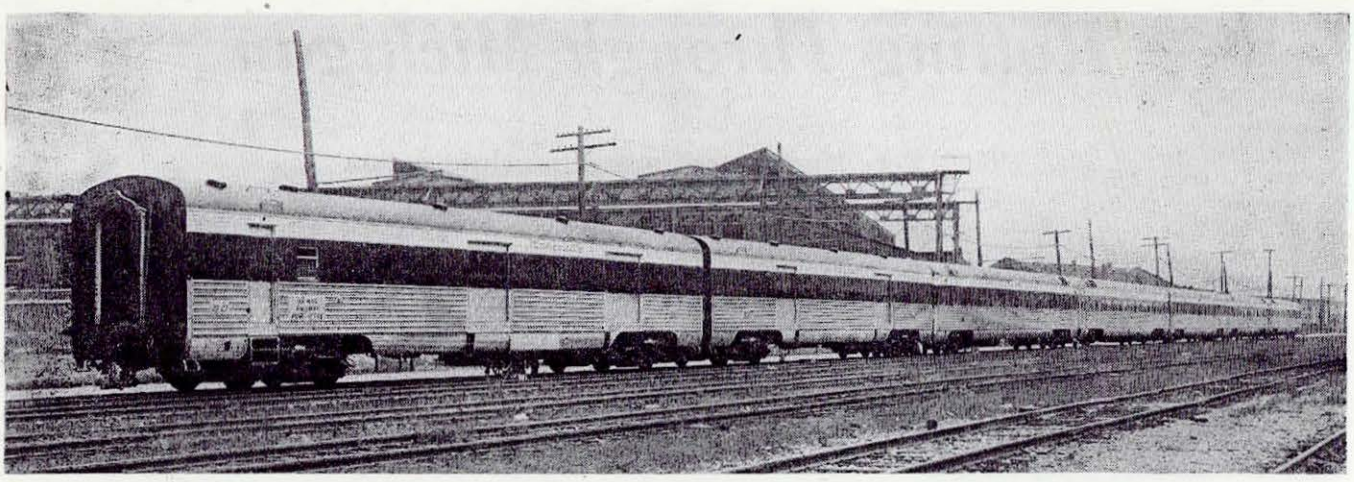
With such frequent schedules it is expected that convenient arrival and prompt return can be arranged by any business man wishing to travel between Detroit and Grand Rapids, or between Lansing, where an intermediate stop is made in both directions, and either of the other cities. A network of excellent highways parallels the route of these trains, but questioning of passengers on some of the early runs indicates that the sleek, stainless steel, maize and blue streamliners are an attraction sufficient to draw a large number of travelers who otherwise would have used buses or private automobiles to make the trip.

Special Service Features

Attractive waitresses form the staff of the dining cars of the new "Pere Marquettes." These waitresses have been training on other trains since the Pere Marquette took over the operation of



One of the new streamliners makes a brief stop at Lake Odessa Station



Car equipment built by Pullman-Standard for one of the new seven-car "Pere Marquettes"

its own dining cars some months ago and substituted waitresses for male waiters. As a part of the new service, a no-tipping experiment, originated by Robert R. Young, chairman of the board of the Chesapeake & Ohio, is being tried and so far has worked out satisfactorily. The waitresses are paid on a basis to offset the lack of tips and the passenger reaction has been most favorable.

Another innovation on the new streamliners, also originated by Mr. Young, is that passengers may make advance reservations and pick up tickets and seat accommodations on the train without waiting at station ticket windows. All the passenger has to do is to telephone any Pere Marquette ticket office and make his reservations in advance.

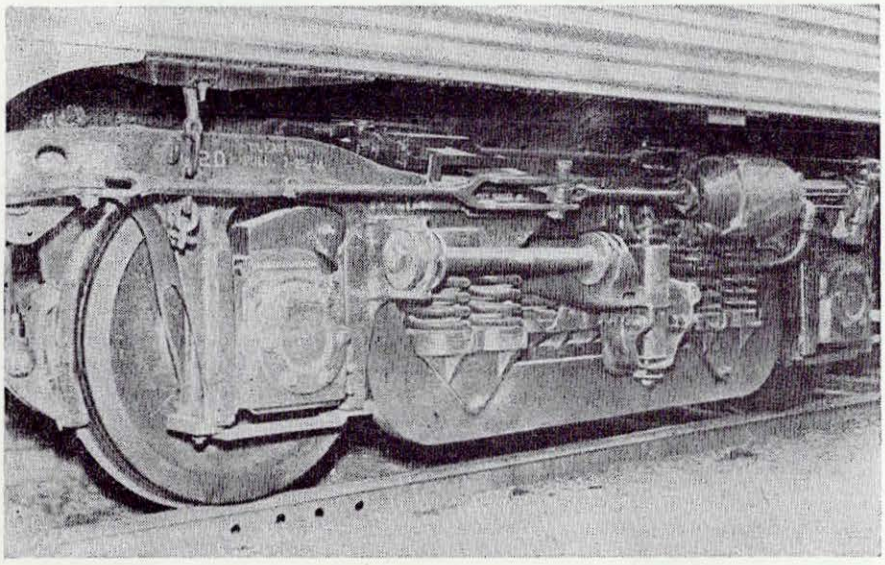
Passenger representatives aboard the train see to the seating of the patrons in accordance with the reservations shown on the diagram and sell the necessary tickets. When requested, they also make arrangements for return reservations on the same basis. In the first few weeks of operation this system has worked perfectly and without confusion.

Coincident with the inauguration of the new trains, the Pere Marquette passenger department issued an unusually attractive passenger timetable, in booklet form, also colored maize and blue. This timetable is one of the most readable that has been issued by any railway.

This first of the all-new post-war streamliners is heralded as the first streamliner to run entirely within the state of Michigan, but it is much more than that.

It is the forerunner of a vast fleet of such trains now being built. As such, it is a symbol of railway passenger progress. It is unfortunate that the plans of the railways to meet competition by the provision of superior passenger service have been largely stymied by the widespread labor difficulties. However, the first of the thousands of new cars on order are beginning to roll out of the carbuilders' plants. The next year will see a revolution in railway passenger service.

If the somewhat brief experience of the new "Pere Marquettes" is any criterion, there is plenty of traffic to be had as soon as the proper service is made available to the customers by the railways.



One of the Commonwealth four-wheel car trucks equipped with Hyatt roller bearings and Monroe shock absorbers

Cars and Power Units

The new "Pere Marquettes" are twin trains. Each consists of a Diesel-electric locomotive, baggage car, mail car, four coaches and a dining car. The locomotives, built by the Electro-Motive Division of General Motors Corporation, are of the type that power many of the nation's fastest scheduled passenger trains. They include every new feature and device developed for use on this particular type of locomotive.

The cars, built by the Pullman-Standard Car Manufacturing Company, are of welded steel construction with partial stainless-steel exteriors. These ultra-modern cars embody many new features in exterior and interior decorative treatment and facilities designed to provide maximum passenger comfort, convenience and satisfaction. They bring to coach travel at coach prices many of the prized features of extra-fare trains and symbolize the long-promised luxury of post-war travel.

E.-M. Diesel Locomotives

Each of the Diesel locomotives for the new trains is a standard Electro-Motive single-unit 2,000-hp. locomotive with power plant consisting of two 1,000-hp. 12 - cylinder V - Type 2 - cycle Diesel

engines, each directly connected to an electric generator. Current is led through control apparatus in the engineman's cab to the four traction motors, located two in each six-wheel truck. Each traction motor is geared directly to a driving axle, resulting in power at the rail at eight wheel points.

Each locomotive weighs, fully loaded, 315,000 lb., is 71 ft. long, 14 ft. 10 in. high overall, and 9 ft. 6 in. wide. It carries 1,200 gal. of fuel oil and 1,200 gal. of train-heating boiler water.

The cab of this locomotive, painted in light gray tones on the interior, is soundproofed, permitting the engineman and fireman to exchange signal observations in ordinary tones. It has an unobstructed auto-type windshield; adjustable roll-down no-draft side windows for summer ventilation; is heated in winter; has automatic windshield wipers, defrosters, sun visors, and pneumatic horns (one for country and one for city operation), and deeply-upholstered swivel arm chairs, scientifically built to reduce fatigue and aid alertness.

Operating controls, located for the most natural accessibility, include a throttle, reverse lever, train and locomotive brake valves, a sander, and such operating aids as air-pressure indicator, warning devices, speedometer, and fuel gage. An added feature is the two-way radio by means of which the head-end crew can relay operating messages to or receive them from crew members in the train proper.

This locomotive is geared for a top speed of 117 m.p.h., but top speed is less important than the high average speed which this type of locomotive can maintain because of its rapid acceleration, lower center of gravity, flexible wheel base and spring suspension arranged to permit taking curves easily and safely. The locomotive can operate for 600 miles on one loading of fuel and water.

The Car Equipment

The new "Pere Marquette" cars, built by Pullman-Standard, comprise welded Cor-Ten steel body construction, covered with stainless steel for decorative purposes up to the windows which have a clear width of slightly over 5 ft. The baggage and mail cars are 70 ft. long and weigh 92,400 lb. and 97,300 lb., respectively. The other cars are 85 ft. long, coupler to coupler, and have the following weights: coach-lounge car, 113,650 lb.; coach-observation car, 114,250 lb.; dining car, 117,300 lb.

The trucks are Commonwealth all-coil-spring type, with 8-ft. 6-in. wheel spacing and standard 13⅜-in. pedestal openings to accommodate any type of roller bearing. In this instance, Hyatt roller bearings and journal boxes are used. Simplex unit-cylinder clasp brakes are installed, also American Brake Shoe controllers to prevent wheel sliding. The truck center plates are rubber-insulated to minimize the transmission of noise and vibration to the car body.

To avoid shocks and assure easy riding, particularly when entering curves without heavy reduction of speed, trucks of the "Pere Marquette" are equipped for the first time with lateral as well as vertical shock-absorbing devices. Monroe 2-in hydraulic shock absorbers are connected, two per truck, between the bolster and the truck transom on the under side to cushion lateral shocks. Vertical shocks are dampened by two Monroe 3-in. absorbers, mounted between the bolster ends and the truck frame in accordance with customary practice.

The coach-lounge car

In the dining car

Two of the coaches in each train have seating capacities for 54 passengers each, with nine additional seats in each smoking lounge. The other two coaches seat 56 passengers each, with 10 extra seats in each observation lounge.

Each coach has a spacious powder room and lavatories, as well as a luggage compartment and electrically-refrigerated drinking fountain. A loud speaker outlet can be used to transmit programs from a master radio in the dining car or, by simply turning a switch, can become a public address system for broadcasting announcements to passengers.

The interior decorative treatment for two coaches of each train utilizes tones of tan and the other two coaches tones of green, with window drapes, upholstery and carpeting harmonizing. Large photo murals, depicting actual scenes along the Pere Marquette right-of-way, are finished in a gray-green monotone to harmonize with the interior color scheme and effectively displayed on bulkheads between the passenger compartment and lounge section of all coaches. The exterior decoration includes roof, window bands and trucks finished in blue. Below the windows and in the center of the car, above the windows, are car-length stainless steel bands. The name "Pere Marquette" is blazoned on maize-color letter boards in stainless steel script letters.

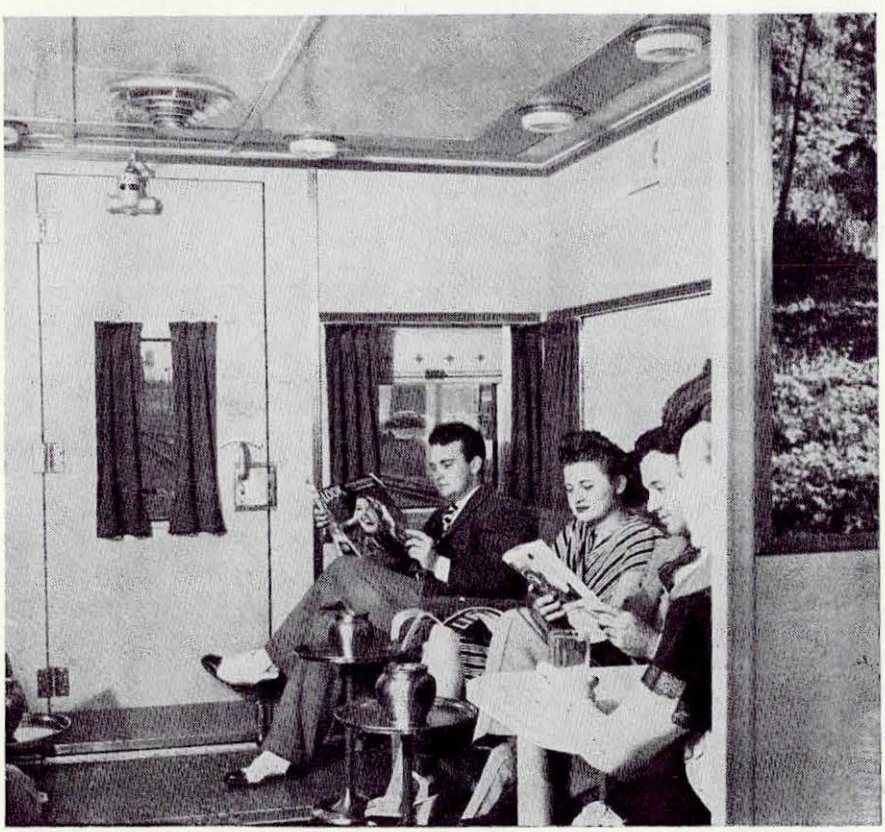
Coach seats of the Heywood-Wakefield Sleepy-Hollow type are installed for the first time in coaches of these two trains, being spaced 41½ in. on centers to give ample leg room and providing a wide range of adjustment of back and foot-rest position.

This seat has been developed as a direct result of studies of 3,867 persons who were measured to determine the scientific sitting requirements and postures of the average man and woman passenger. Eight measurements, taken of each individual, were reduced statistically, then checked against experiments with three chair forms created from molder's sand, in which hundreds of people were invited to sit.

The seat of the new chair is 20 in. long, 19 in. wide and raised 17 in. from the floor. The back height is 28 in., the shoulder breadth 19 in., the elbow rest 8½ in. above the seat. A button adjusts the back to 10 positions and the foot rest has four positions. A feature of this chair is the full support given the entire body when in the reclining position. The chair is credited with supplying adequate seating with maximum comfort for more than 85 per cent of the traveling public.

Each car is equipped with the latest Vapor cycle-modulation, zone-control heating equipment, which includes efficient lightweight fin-type radiation units. Vapor cooling controls are also installed in connection with the Frigidaire air-conditioning system. Electric power for air-cooling and lighting is supplied by a Safety 20-kw. Genemotor on each passenger car, taking power from one of the truck axles through a Spicer mechanical drive. The freshness of air supplied by the air-conditioning system is maintained by means of Dorex filters which are placed in the recirculated air flow and automatically take tobacco and other gaseous smells out of the air. These filters contain activated carbon made from cocoanut shells.

The observation lounge



Coach Lighting

In the main seating compartments of the coaches, new Luminator lighting affords a high degree of reading comfort and riding convenience. The reading lights, installed in the baggage rack, are equipped with two lenses over each cross seat, one to give light for the window passenger, the other for the aisle passenger.

The light beam patterns from the reading lights are accurately designed so that each supplies a high-intensity light on the reading plane for one passenger, without overlapping onto the adjacent passenger or others in front or back. Each light has an individual switch so that a passenger may read without disturbing his neighbor who may want to sleep. Or a passenger may read when all the other coach lights are turned off, without disturbing any of the other travelers.

To obtain maximum light in the aisles without disturbing the passengers, or causing conflicting light beams, magnifying prism-lens glass is employed in the coach ceiling lights which project a narrow high-intensity beam of light to the width of the aisle without extending over into the passenger area. This fixture also gives a soft, diffused light for the ceiling and upper portion of the car.

Night Lights

In the late evening, when the main ceiling lights are turned out, night lights incorporated in the center-ceiling fixtures may be turned on to give a dim, blue light for the sleeping hours on a night run. These supply a small amount of light so that passengers may move about without any difficulty, yet they are not bright enough to interfere with sleeping.

In the lavatories and toilets, Luminator magnifying prism-lens glass lighting fixtures give a high-intensity light on the required areas. Mirror lighting is supplemented by fixtures over the mirrors which light the top surfaces of the head and face. The vestibules and passageways are also lighted with individual incandescent fixtures of the magnifying prism-lens type.

The dining cars have many unusual features. Kitchens centrally located, vibrationless tables, novel illuminating effects, inter-car telephone communication, tables uncluttered with water bottles and menus—these are a few of the innovations.

The kitchen, in its central position, is flanked by seating sections, each for 22 persons. This placement has several advantages. Patrons are not restricted to one large section, congestion is avoided, and the distance from the kitchen to the farthest table is reduced.

Dining Car Facilities

Only 109 sq. ft. of floor space is devoted to the kitchen, yet it will adequately serve the 44-patron capacity of the diner. It has deep-freeze units for out-of-season foods and regular refrigeration, both electrically operated. There are no kitchen windows, permitting full utilization of wall space. The kitchen is air-conditioned, and powerful exhaust fans keep cooking odors out of the dining sections. Modern dishwashing and refuse facilities meet the full requirements of the U. S. Public Health Service. Doors at either end permit direct service to patrons in the adjoining sections.

The styling of the dining sections also is unique. Rectangular, square, and triangular tables, for two or four guests, are fitted into deeply cushioned alcoves along the wall. The tables are an integral part of the car structure. Brackets fitted into the walls instead of legs furnish their support. This not only affords more leg room but tends to keep the tables steady and vibrationless. The diagonal setting of the tables, used for the first time in a railroad diner, permits service between the tables rather than from the aisle, leaving the aisle free.

An improved table setting results from keeping water bottles, creamers, sugar containers and menus on shelves at the junctures of the diagonal seats. Waitresses supply these when serving each table and return them to the shelves, leaving maximum table space for guests and making for quick changes of linen.

Unique and beautiful effects in the dining cars are secured by means of two strips of Luminator lighting fixtures in the ceiling, consisting of block-shape prism-lens glass, each approximately 6 in. long. These are placed close together making one continuous fixture which is practically dust proof. High-intensity light from incandescent bulbs behind each block is projected downward in narrow cones of light which overlap. The light is so controlled that a passenger in any seated position cannot see the light source, yet enjoys the full benefit of high-intensity light on the table at which he is sitting.

Above—Engineman of Diesel-electric locomotive No. 102 on "Pere Marquette" streamliner communicating with the conductor at the rear of the train

Below—Yardmaster at Wyoming yard, Grand Rapids, Mich., communicating by radio with "Pere Marquette" streamliner

In interior decorative treatment, the diners are a symphony of color. Ceilings are in light yellow, with the bulkheads in darker tones of the same color. Draperies are of gold-chevroned fabric and the carpeting a striking gunmetal. Table tops are blue-green with the built-in diagonal seats upholstered in gold fabric and the loose form-fitting chairs in blue-green.

The dining-car crew consists of a steward, assistant steward, chef and two assistants, and four waitresses.

Radio-Telephone System

The two-way radio-telephone system for end-to-end and train-to-wayside station communication includes very-high-frequency radio equipment, installed in the cab of each locomotive and in the dining car of each train. Remote control of the radio in the diners is being provided in each car of the trains. The wires for remote control of the radio system are extended to the cabs of the locomotives and are to be used for a telephone line between the cars and locomotives of the trains. In the event of failure of this wire line, or if the locomotive is detached from the cars, the conductor can talk by space radio channel to the locomotive crew, as well as the crews of other radio-equipped trains and fixed stations, by means of the auxiliary space radio transmitter-receiver unit installed in the dining car. Remote control units of radio equipment will be designed for use on either the radio or telephone systems. One fixed wayside station, with very-high-frequency radio equipment, is in service in the yardmaster's office at Wyoming yard, Grand Rapids, Mich.

With these telephone and radio facilities, continuous and instantaneous communication is provided between the conductor and the engineman, enabling them to discuss the operation of the train, train orders, and report hot boxes, mechanical failures or other emergencies. The fixed wayside station at Grand

Partial List of Materials and Equipment on the New "Pere Marquette" Trains

Car builder	Pullman-Standard Car Mfg. Company, Chicago
Aluminum	Aluminum Company of America, Pittsburgh, Pa.
Alloy steel	Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Stainless steel	Allegheny-Ludlum Steel Corp., Pittsburgh, Pa. American Rolling Mill Company, Middletown, Ohio Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
Truck frames	General Steel Castings Corp., Eddystone, Pa.
Truck springs	American Locomotive Company, Railway Steel Spring Div., New York
Axles	Standard Forgings Corporation, Chicago
Wheels	American Rolling Mill Company, Middletown, Ohio
Side bearings	American Steel Foundries, Chicago
Journal bearings and boxes	Hyatt Bearings Div., General Motors Corp., Harrison, N. J.
Air brakes	Westinghouse Air Brake Company, Wilmerding, Pa.
Clasp brakes	American Steel Foundries, Chicago
Hand brakes	National Brake Company, Buffalo, N. Y.
Slip control equipment	American Brake Shoe & Foundry Co., New York
Hydraulic shock absorbers	Monroe Auto Equipment Company, Monroe, Mich.
Tight-lock couplers	National Malleable & Steel Castings Co., Chicago
Draft gear	Waugh Equipment Company, New York
Batteries	The Electric Storage Battery Co., Philadelphia, Pa.
Battery-charging receptacles and electric train-line connectors	The Pyle-National Company, Chicago
Annunciators	Edwards & Co., Inc., Norwalk, Conn.
Genemotor, 20 kw., spicer drive and air circulating fans	The Safety Car Heating & Lighting Co., N. Y.
Axle generator pulleys and V-belts (Baggage and mail cars)	The Dayton Rubber Mfg. Co., Dayton, Ohio
Air-conditioning system	Frigidaire Div., General Motors Corp., Dayton, Ohio
Air filters:	
Fresh air	Midwest Mfg. Company, Louisville, Ky.
Recirculated air	Detroit Lubricator Company, Detroit, Mich.
Steam-heat specialties and controls	Vapor Car Heating Company, Inc., Chicago
Floor composition	Tuco Products Corporation, New York
Insulation	Gustin-Bacon Mfg. Company, Kansas City, Mo. Johns-Manville Sales Corporation, New York
Elastic calking compound	The Parr Paint & Color Company, Cleveland, Ohio
Diaphragms:	
Inner	Pullman-Standard Car Mfg. Company, Chicago
Outer	Goodyear Tire & Rubber Company, Akron, Ohio
Inner diaphragm material	Tuco Products Corporation, New York
Window sash and glass (pass. cars)	Pittsburgh Plate Glass Company, Pittsburgh, Pa.
Window sash (mail cars)	The Adams & Westlake Company, Elkhart, Ind.
Window capping and table tops	The Formica Insulation Company, Cincinnati, Ohio
Interior finish:	
Wainscot-Presdwood	Masonite Corporation, Chicago
Partitions-plywood	Haskelite Mfg. Corporation, Chicago
Linings and paneling, aluminum	Aluminum Company of America, Pittsburgh, Pa.
Translucent glass windows	Pressed Prism Plate Glass Company, Chicago
Snap-on mouldings	Brasco Mfg. Company, Harvey, Ill.
Hardware (locks, door checks, etc.)	Adams & Westlake Company, Elkhart, Ind. Yale & Towne Mfg. Company, Philadelphia, Pa.
Baggage side door hangers	The Midland Company, South Milwaukee, Wis.
Kitchen range, steam table and urns	Stearnes Company, Chicago
Frozen food locker unit	Frigidaire Div., General Motors Corp., Dayton, Ohio
Monel metal	Steel Sales Corporation, Chicago
Floor covering:	
Rubber	Goodyear Tire & Rubber Company, Akron, Ohio
Carpet	Bigelow-Sanford Carpet Company, Inc., New York
Seat coverings	Collins & Aikman Corporation, New York
Coach seats	Heywood-Wakefield Company, Gardner, Mass.
Loose chairs and settees	Beck & Blatchford Company, Chicago
Window shades	General Fireproofing Company, Youngstown, Ohio
Venetian blinds	The Pantasote Corporation, New York
Drapery and shade facing materials	H. B. Dodge & Company, Milwaukee, Wis.
Fabreeka (damping material)	Goodall Fabrics, Inc., Cincinnati, Ohio
Photomurals	Fabreeka Products Company, Boston, Mass.
Lighting fixtures	Kaufmann & Fabry, Chicago Luminator, Inc., Chicago The Pyle National Company, Chicago
Safety lights	Safety Car Heating & Lighting Company, New York
Radio (Inter-train communication)	Mars Signal Light Company, Chicago Farnsworth Television & Radio Corp., Fort Wayne, Ind.
Radio and amplifiers	RCA Victor Distributing Company
Microphone	Turner Company, Cedar Rapids, Iowa
Receptacle for connecting city telephone	A. & J. M. Anderson Mfg. Company, Boston, Mass
Drinking-water coolers	Marquette Railway Supply Company, Chicago
Paper-cup dispensers	Logan Drinking Cup Co., Div. U. S. Envelope Company, Worcester, Mass.
Copper tubing and sweated fittings	Chase Brass & Copper Co., Inc., Waterbury, Conn.
Hoppers, seats and lids	Duner Company, Chicago
Wash stands	Adams & Westlake Company, Elkhart, Ind.
Fire extinguishers	Pyrene Mfg. Company, Newark, N. J.
Intake blower	R. F. Sturtevant Company, Boston, Mass.

* * *

Rapids enables the conductor on the trains, when near that station, to advise the yardmaster of his approach to or departure from the yard limits and also to secure instructions or information concerning arrival or departure. The main purpose of the entire communication system is to increase the safety of high-speed train operation and the efficiency of passenger service in general.

The very-high-frequency radio equipment on the trains and in the fixed station is identical and interchangeable, consisting of a low-power 10-watt transmitter, receiver, power unit and control panel with handset and speaker. This equipment is frequency modulated, and is designed for operation in the 152 to 162-megacycles railroad band, allocated by the Federal Communications Commission.

Additional Communications

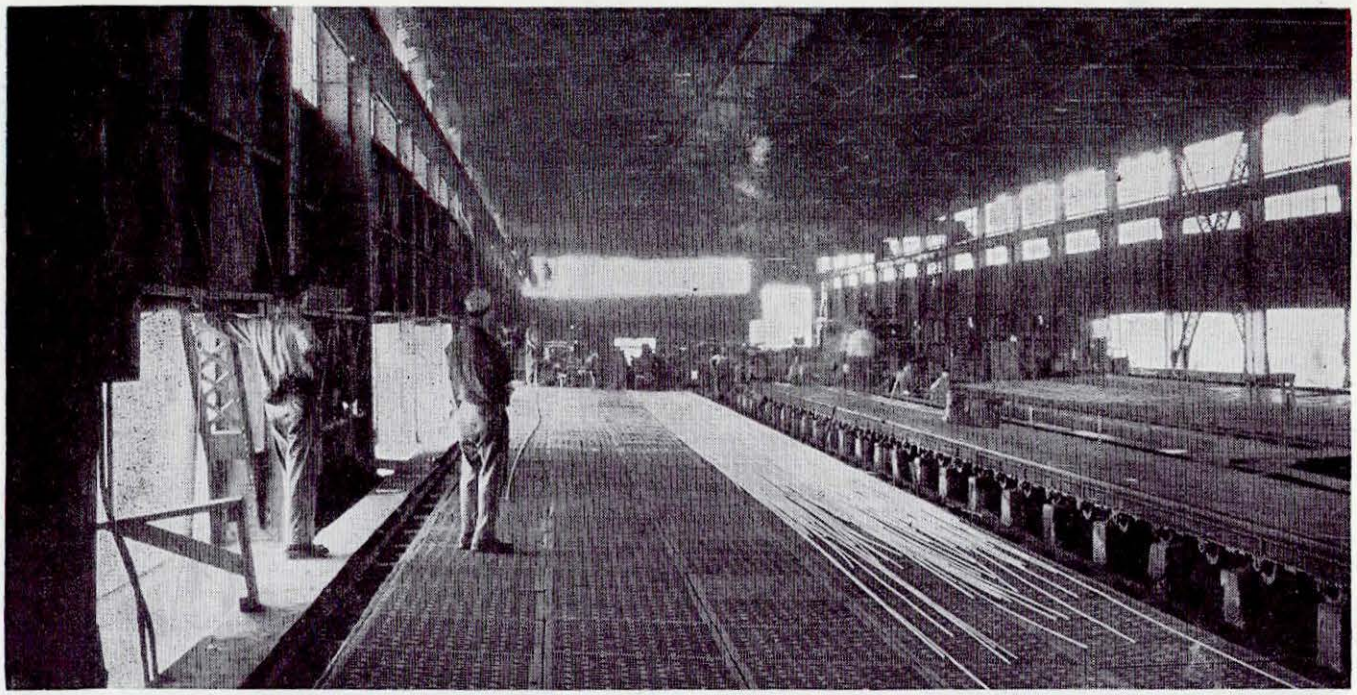
The remote control unit in each car of each train has a light and chime which function to call the conductor's attention when a signal is received by the equipment. This arrangement is used instead of a loud-speaker which might disturb passengers. This arrangement will enable communication to be initiated or received at all times from any position aboard the trains.

In addition to the fixed station at Grand Rapids, additional fixed stations are being considered at other strategic points along the route of these trains to provide emergency facilities as well as continuous train-to-wayside station communication. Furthermore, when available, walkie-talkie equipment, operating on the same frequency as the present equipment, is scheduled for installation, to enable train crews on foot and away from the train to talk with the conductor and engine crew.

The radio equipment for these trains was designed especially by the Farnsworth Television & Radio Corporation after specifications were jointly determined by the mechanical, electrical and operating departments of the railroad and the engineers of the Mobile Communications Division of Farnsworth.

Photo courtesy of W. A. Lucas

Lehigh Valley enginehouse and shops at Easton, Pa.



Bars after receiving the finishing pass are delivered to the hot-beds by the roller conveyor at the extreme left. After the slow-cooling process is completed they are placed on conveyor at right for delivery to shears to be cut to the desired length

Big Market for Used Rail

Purchasing more than one-half million tons of used rails annually, the rail steel mills provide the railroads with a dependable means for the disposal of this surplus track material

DISPOSING of approximately 881,000 tons of used rail released from tracks each year assumes all the aspects of big business, when it is realized that the railroads derive a substantial income from its sale. Buying more than 522,000 tons annually, the rail steel mills are among the railroads' largest customers for used rail that has rendered efficient service, but for various reasons has reached the stage where it is not economical to retain for relaying purposes.

Since 1928 the railroads have relayed an average of 1,101,000 tons of new rail in replacement each year. This means that the old rail which is replaced is either relayed in secondary lines or sold as relayer, reroller or scrap. Among the ready outlets are rolling mills that are specially designed to re-roll the used rail into thousands of articles used in homes, on farms and in industry.

Large Potential Market

Even during 1945, when the railroads were severely restricted in procuring new rail, the 21 rail steel mills of the United States and Canada purchased almost $13 million of used rail. During the last 18 years, including the depression period and World War II, both of which brought severe curtailment of new rail production, the rail steel mills used an average of more than 522,000 tons, and rolled an average of 418,000 tons of finished products each year. By reason of increased operating efficiency and enlarged plants, the rail steel mills today have an annual production capacity of 1,270,000 tons.

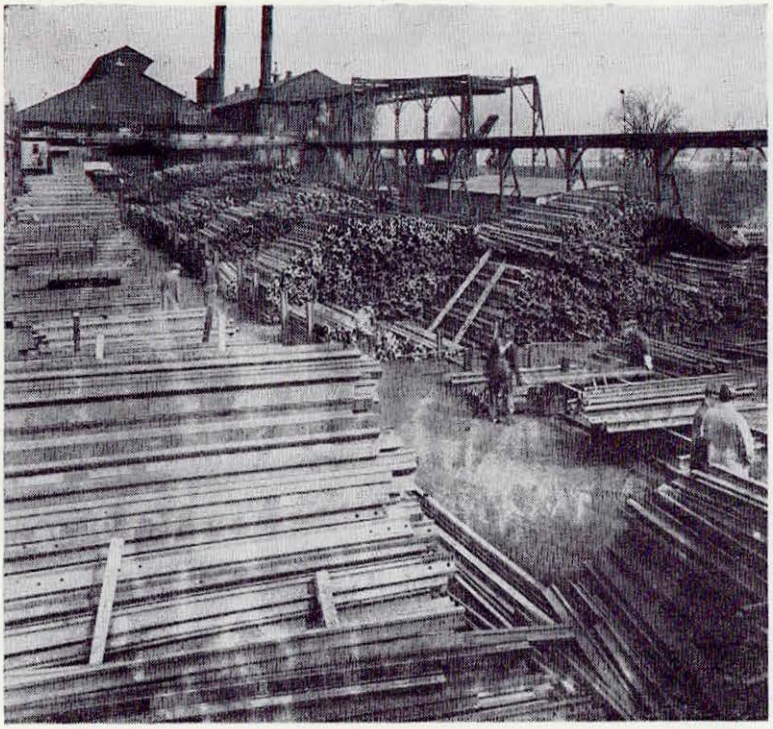
To supply the mills with sufficient used rail to permit this full time operation, the railroads have a potential yearly market for up to 1,500,000 tons, or based on current rerolling rail prices, $33,750,000 worth, but the present restricted supply of new rails has curtailed the release of used rails and the rail steel industry must rely on its position as a long-established market for access to every ton available.

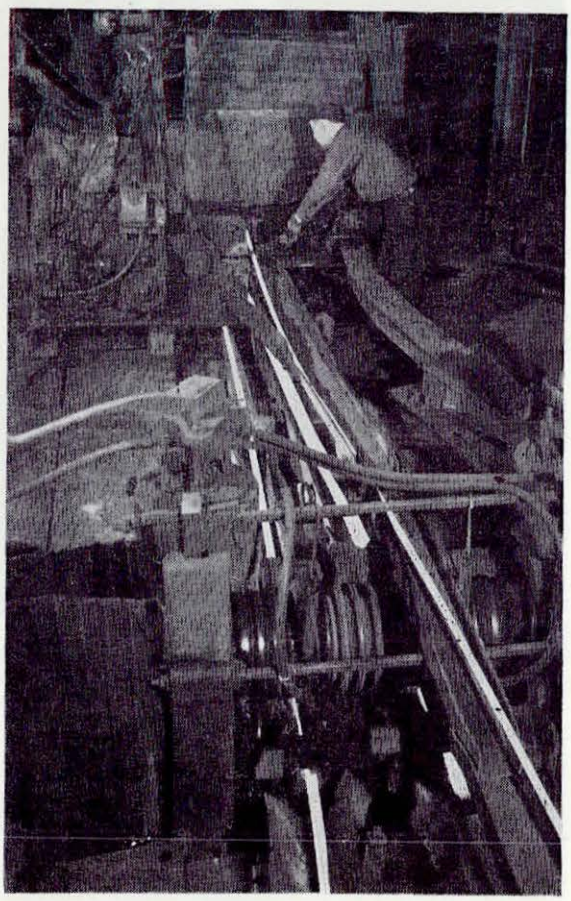
During the period 1928-45 inclusive. the rail steel mills purchased more than 9,396,000 tons of rerolling rail from the railroads. This tonnage went into the production of bars and shapes available for railway supplies and appliances, including concrete reinforcing bars; ladders and grab-irons for box cars; brakebeams; stiffeners; fence, gate and sign posts and also thousands of other miscellaneous items.

High Quality Raw Material

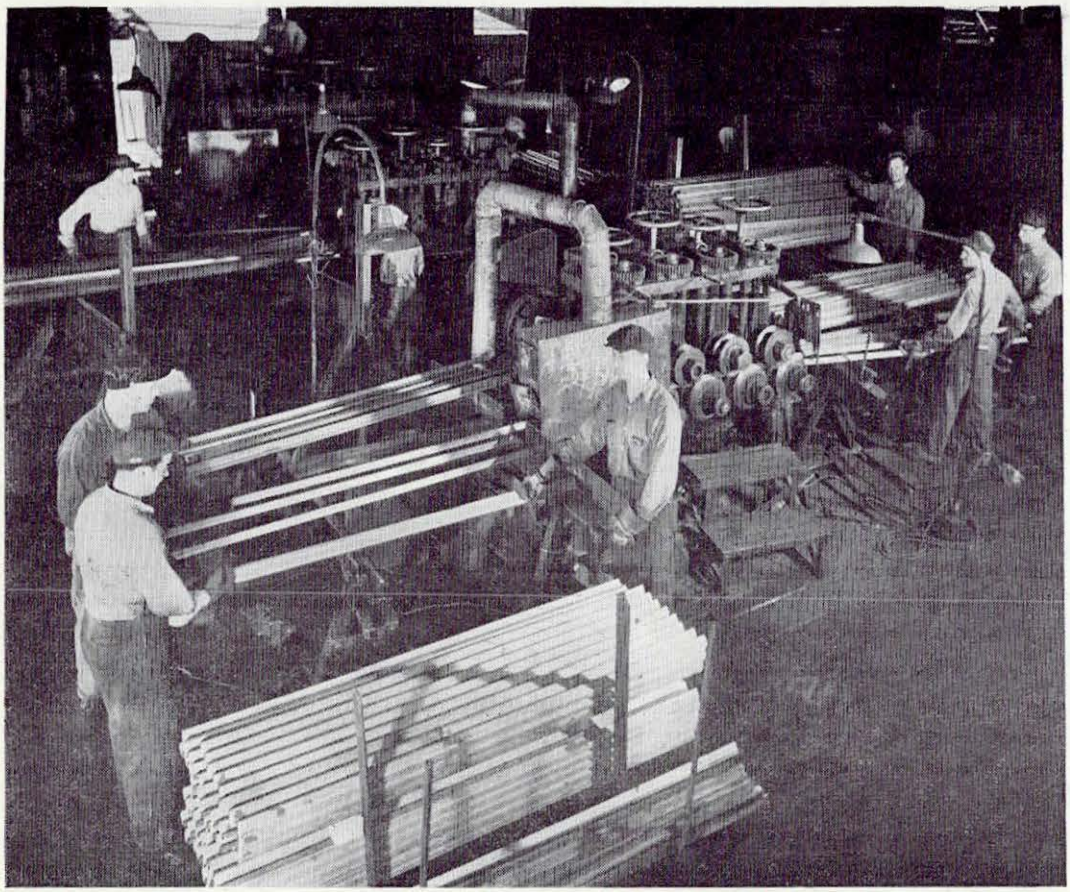
Rail released from normal track service by the railroads is a source of excellent hard grade steel and in a form readily convertible by the conventional hot-rolling process into small bars and shapes. Perhaps no factory operation receives more constant care and continuous scientific research than the manufacture of steel rails, for upon their perfection depends the success of rail transportation and safety of the traveling public.

Two fundamental properties — high strength and stiffness—are typical characteristics of rail steel products. Having approximately 50 per cent greater strength than mild steel, rail steel provides an opportunity for using lighter sections and gages without sacrificing





Above—To permit efficient heating and production with a minimum of roll changes, rail steel mill yards are designed for specialized segregation and storage of large stocks of prepared rail. Right—Parts of white-hot rail obtained from slitting into three sections—head, web and base—proceed from initial roughing passes to individual trains of rolls for further reduction to the desired shapes. Below—Straightening in specialized machines is a routine procedure for all bars and shapes after hot-shearing to ordered lengths



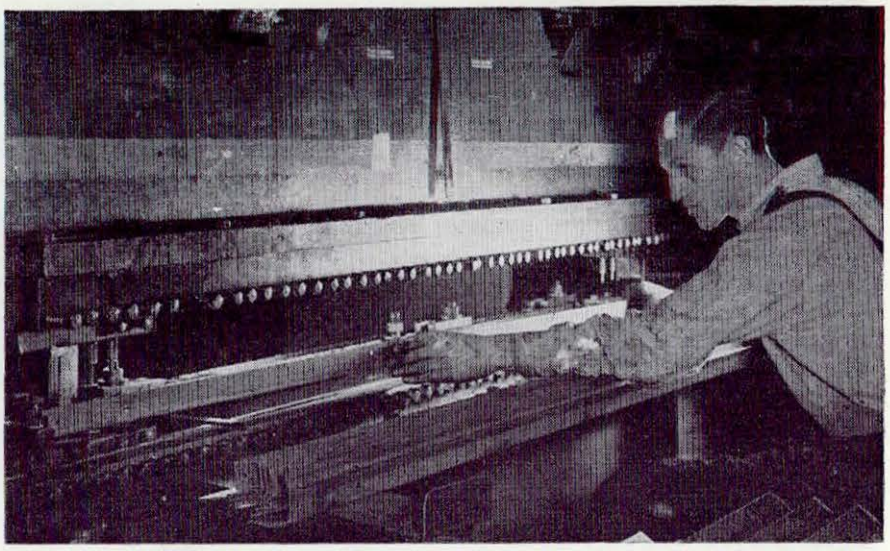
strength, stiffness and resiliency. Overloads that would cause permanent distortion in milder grades do not do so in rail steel; the steel, still elastic, resumes its initial form when the load is released. Rail steel resiliency, a property proportionate to the square of the elastic limit, gives high resistance to residual deformation, compared with milder steels. Its endurance limit is approximately 53 per cent of its ultimate strength and insures greater ability to stand stress repetitions and reversals.

Rails removed from track service were first considered a desirable raw material by the operator of a small rolling mill in Syracuse, N. Y., in 1868. The idea of using parts of rail as small billets in the established method of hot-rolling without melting and casting ingots was an advantageous process and the mill was readily modified to accommodate such production.

In its operation, only steel rails were used and the process was successful in developing practical means for producing bar size products usable where hard grade steel was desirable. Through the years following the Civil War, during the rapid growth of the railroads and the development of the steel industry, other mills initiated the same process and by the turn of the century six mills were established and able to obtain their raw material requirements from rails released by the railroads. During the last 45 years the industry has expanded to 20 mills in the United States and one in Canada. In addition to a mill in Spain and at least one in Japan, rail steel mills have operated in other foreign countries and the construction forces on the Panama Canal operated a small mill to produce reinforcing bars for use in this structure.

Rails purchased for the rail steel mills are bought under strict requirements governing straightness, size, length and uniformity. Rails used in conjunction with frogs and switches are not accepted. Upon delivery at the rolling mill the rails are again subjected to rigid inspection and all defective rails are discarded as scrap. Surface defects are removed by chipping, grinding, flame cutting or breakout and the rails are segregated according to size and length. The lengths vary from 8 ft. to 17 ft. and the smallest section accepted for rerolling is 56 lb. per yd.

Prepared rails of uniform size and length are heated to carefully controlled temperatures in continuous furnaces with proper provision for a final period of soaking. After being discharged from the heating furnace the rails are passed longitudinally through a set of slitting rolls to produce three types of small billets, the first from the head, the second from the web and the third from the base. These billets are rolled through successive passes into various bars and shapes. The head of the rail produces large bars and shapes; the web provides smaller bars, angles, bands and similar shapes and the base is well adapted to wider and thinner products such as angles, tubing and U-bars.



Punching, shearing and moderate forming have been effectively developed for the hard grade steel as in fence posts where a line of holes is punched in one operation

After the bars have received the last or finishing pass through the rolls they are conveyed mechanically to long iron grills called "hot-beds" where they are grouped and subjected to slow, uniform cooling known as "group annealing." In each step through the mill, inspections are made for size and defects and at regular intervals samples are taken for physical tests. After the bars have properly cooled, they are removed from the hot-beds, cut to the desired length and run through mechanical straightening machines.

Special Fabrication Process

Because of its high carbon content and its greater hardness, the fabrication of rail steel must be modified from that normally required for mild steel. Such details as die clearances, welding, bend diameters, shearing clearances and other fabrication processes are set forth in standard recommendations established by the industry and are available from the producer supplying the rail steel products.

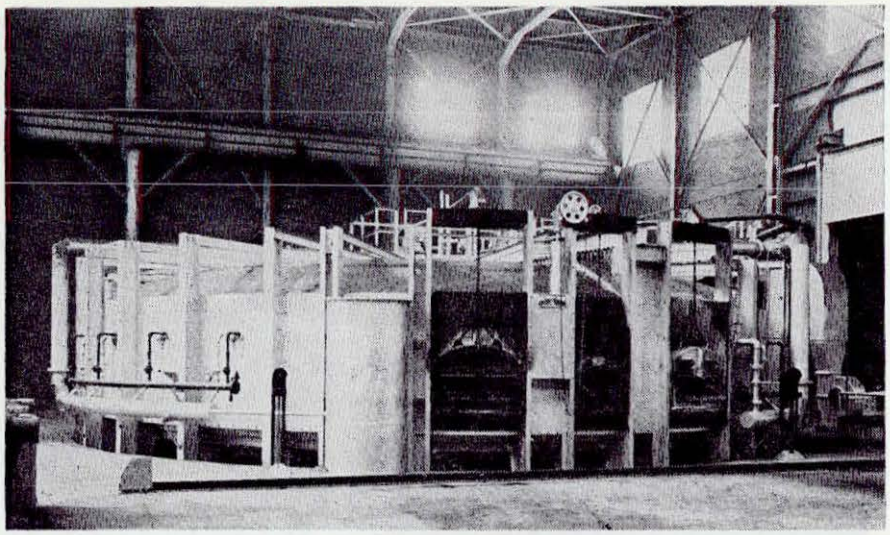
One of the earliest markets for rail steel products was for fabricating tools and farm equipment; however, the rapid development of reinforced concrete construction starting late in the 19th century supplied an increasing market for reinforcing bars, and to date, from 11 per cent to 30 per cent of the total yearly tonnage of reinforcing bars are produced by the rail steel mills. Rail steel was one of the first standard grades of reinforcement. In 1911, following extensive engineering tests, the American Society for Testing Materials adopted specifications for two standard grades of reinforcing bars, rail steel and billet steel. These specifications have been used with only minor changes and both rail steel and hard grade billet steel have identical physical requirements.

In addition to the large quantity of used rail purchased from the railroads, the rail steel mills are also the largest single buyer of car and locomotive axles that have been worn to the minimum diameter as prescribed by the Association of American Railroads. These axles, like the used rail, are rerolled into various articles where forging quality steel is required.

Consistent with the increased production of the rail steel mills, the use of rail steel products has also greatly increased and at present rail steel is used in the manufacture of agricultural implements of all kinds, bedstead angles, furniture, various types of fence posts, structural tubing and numerous appliances used by the railroads where lightness is essential and maximum strength and rigidity are required.

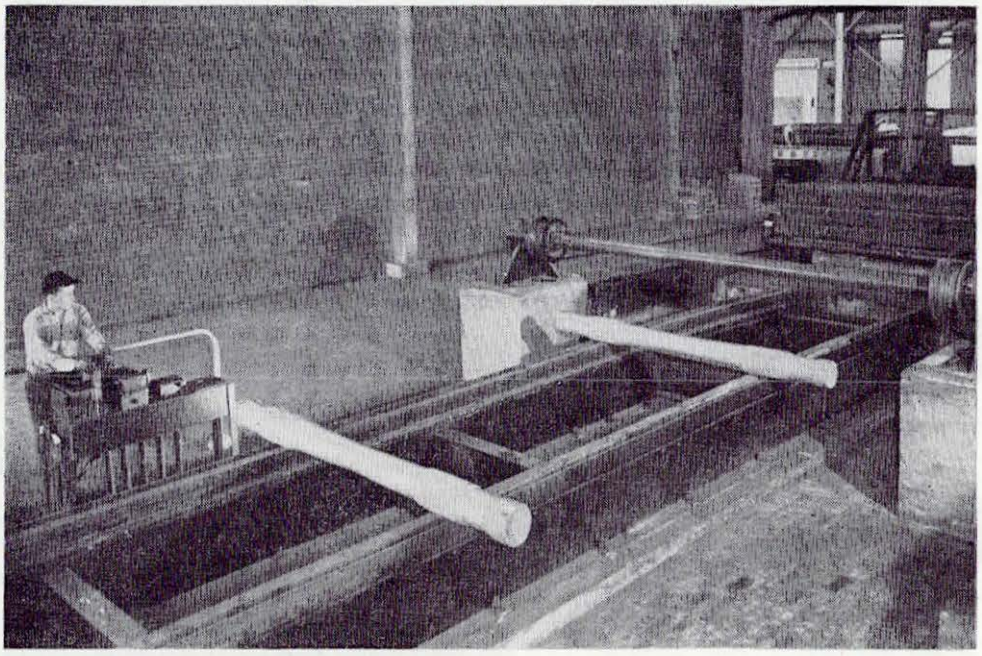
PENNSYLVANIA'S GARDEN EXHIBIT SCHEDULED FOR SEPTEMBER.—With more than 550 entries expected from 25 states and Canada, the Pennsylvania Railroad Garden Club will hold its 11th annual Dahlia and Autumn Flower Show on September 13 and 14 in the main concourse of Pennsylvania station, Thirtieth street, Philadelphia.

Featuring 165 classes with 10 silver sweepstake trophies and 300 class prizes, the show is expected to attract many visitors in the two-day period. More than 15,000 sq. ft. of the station's main concourse will be used for the exhibit.

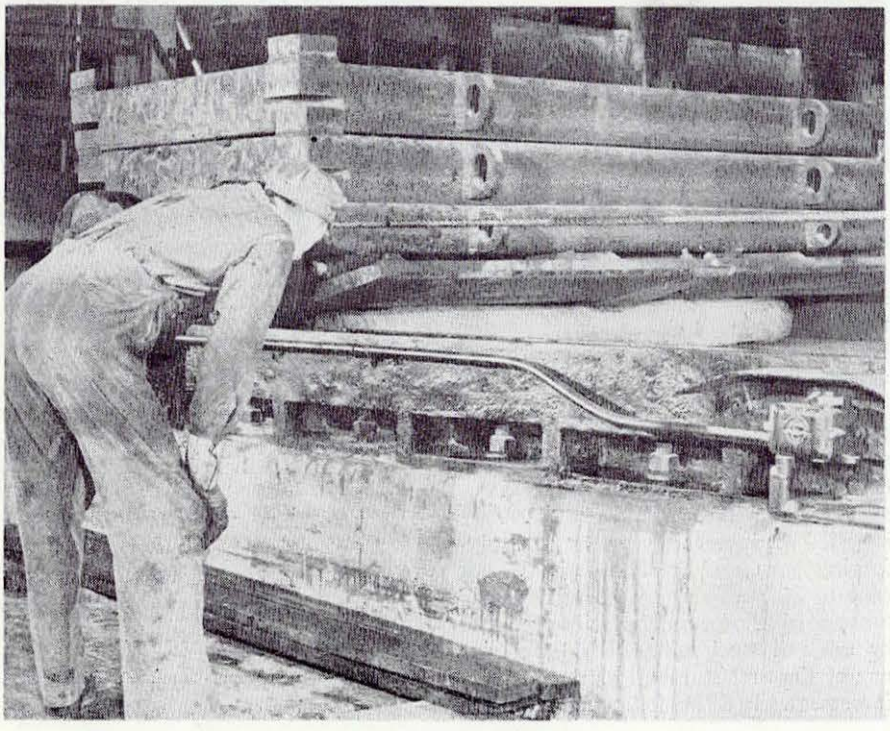


Bethlehem Its Axle

CONTINUING a modernization program which was well under way at the start of the war the Bethlehem Steel Company has made a number of improvements in the axle-manufacturing facilities at its Johnstown, Pa., plant. New equipment added includes a continuous rotary-hearth heating furnace, a number of gas-fired pits for control-



The rotary-hearth furnace for heating axle blooms prior to forging is 50 ft. in diameter and has an hourly capacity of 25 tons—Charging and discharging doors are side by side, separated by a baffle wall—Blooms remain undisturbed on the hearth throughout the heating cycle, free from contact with each other—The coke-oven gas burners are controlled in three groups i. e., in the preheating, heating, and soaking zones



From the one 8,000- and two 10,000-lb. steam hammers the forgings are carried by overhead monorail to a trough-type chain conveyor, thence to the receiving bed of the straightener to be moved by roller-type conveyor to the straightener anvil—No axle bumps another—Beyond the straightener axles are moved at controlled speed on a chain conveyor, each rotating about its axis, for cooling at a predetermined rate and to prevent it from sagging

The straightener—The 25-ton platen rolls the axle over the anvil—One complete revolution straightens it

Steel Modernizes Manufacturing Facilities

cooling of finished forgings, an axle straightener of novel design, and a number of minor auxiliaries.

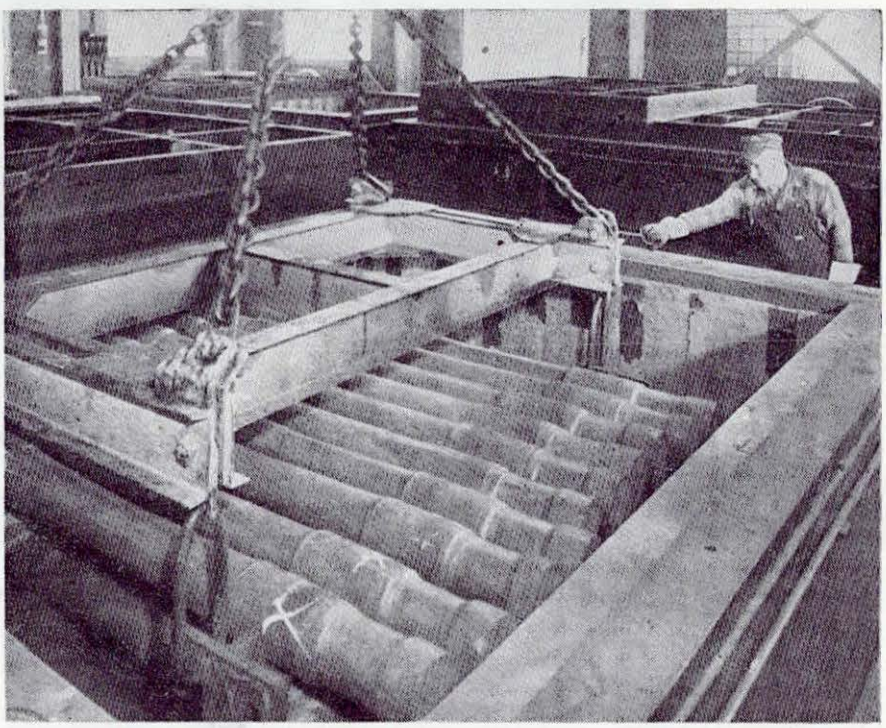
Three new buildings have been added, and the layout of the plant has been greatly improved to give an uninterrupted flow of material from the bloom storage to the final shipping platform in the machine shop. The entire narrow-gage track system has been removed and replaced by concrete roadways, and tractor-driven trailers now serve the entire area.

A complete set of new conveyors carry the stock from one operation to the next and these have been specially designed for extra careful transfer of the hot forgings.

The illustrations depict the principal new facilities affecting both plant efficiency and uniformity of product. These are utilized in the production of standard railroad axles.

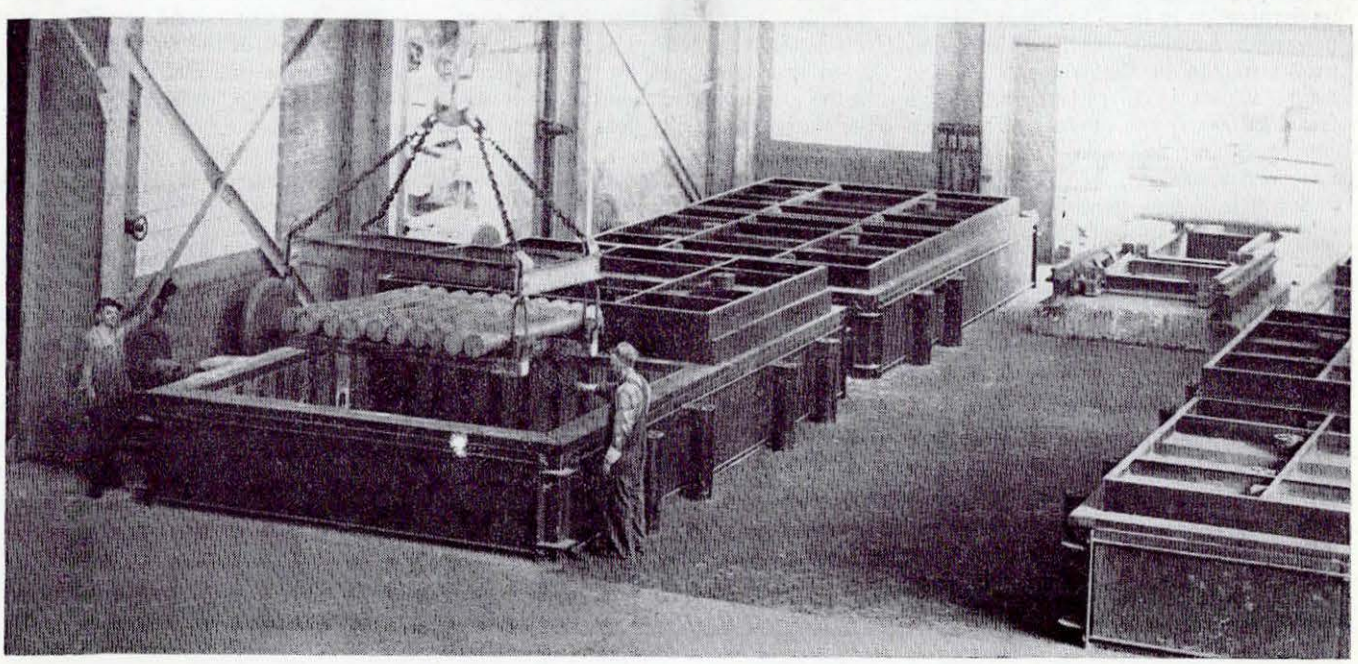
For driving axles and other special forgings a stationary type heating furnace is utilized. This furnace has been extended by about one-third its original length to permit more time for preheating alloy steels.

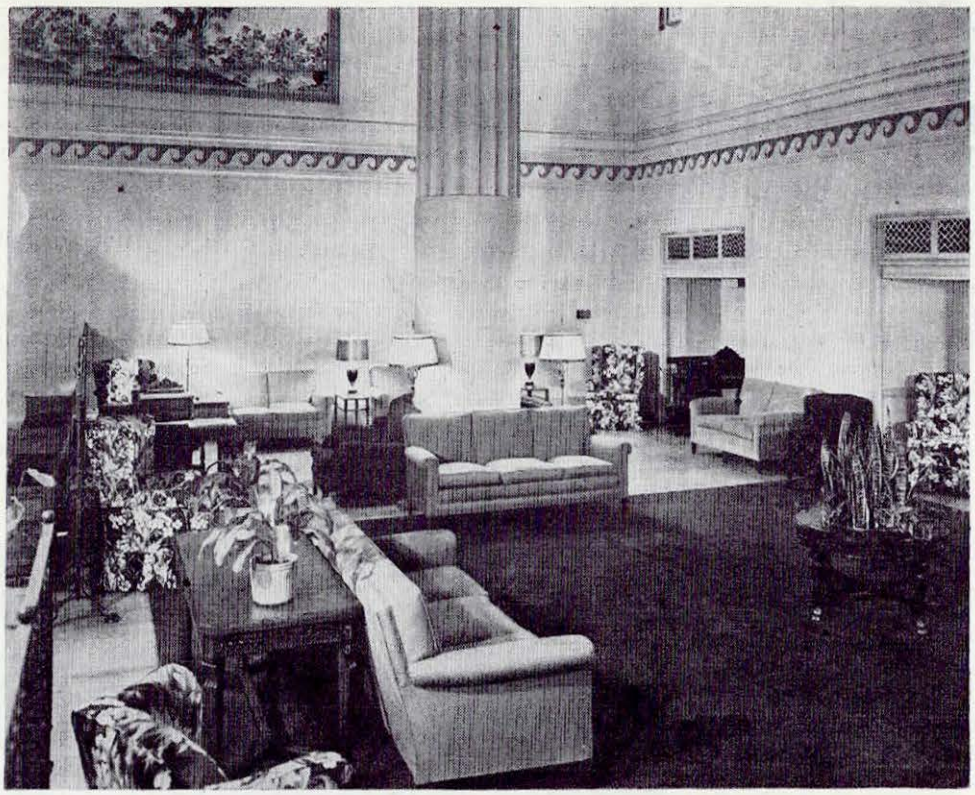
Two automatically controlled furnaces fired with coke-oven gas, each with 443 sq. ft. of hearth area, are provided for the heat treatment of alloy-steel axles and special forgings. Quench tanks are arranged immediately in front of the furnaces. Axles are revolved in the quench.



Axles are delivered by chain conveyors to cradles, each holding 10 standard railway axles—A crane with a spreader rig places the cradles in the cooling pits

The cooling pits, 13 in all, are 11 ft. by 9 ft. 5 in. and 7 ft. 10 in. deep, with a capacity of 25 to 28 tons—Covers with 2-in. block insulation are moved by crane—The pits are preheated with coke-oven gas prior to charging





Appearing more like a fine club than a waiting room, the new women's lounge in the Chicago Union Station assures comfort in ultramodern surroundings for women patrons

All the Comforts of Home for Travelers

Chicago Union Station adds a luxurious lounge to the many special facilities afforded to its women patrons

THE Chicago Union Station Company recently completed a relatively small, yet highly effective, project of modernization in its $75 million Chicago passenger terminal, resulting in a luxurious lounge in the women's waiting room, which is furnished in a style found in few, if any other, railroad passenger stations, and in keeping with similar accommodations in the finest clubs and hotels. The new lounge affords one more modern feature to the many already provided in this station for the comfort and general well-being of its women patrons, and is accomplished largely through the aid of upholstered furniture, a large soft rug, colorful window draperies, floor-lamp lighting, a generally restful color scheme and wall decoration which includes four large murals.

The women's facilities, located in the northwest corner of the station, off the main general waiting room, include a large separate women's waiting room at main floor level; bath and toilet rooms, and an infant's lounge for the special use of mothers with infant children, at basement level; and a hospital room at the second-floor level. Although these facilities are comprehensive in themselves, the management of the station decided that, owing to the large increase in the number of women travelers using the station, most of whom are accustomed to the conveniences and comforts of attractive homes, a comfortable lounge for women was desirable. Accordingly, a section of the women's waiting room was taken over for this purpose and an interior decorator was consulted to help plan the furnishings and decorative effect desired.

Existing Waiting Room

The new lounge is located at the west end of the women's waiting room and occupies about two-fifths of the total area of this room. In this location it can be reached conveniently; yet it does not form a part of the thoroughfare between the doorway from the main waiting room and the stairway to the basement facilities. Also, to make it unnecessary for women to use the lounge for making telephone calls, 12 telephone booths formerly located in niches in the west end wall of the waiting room were shifted to the east end wall.

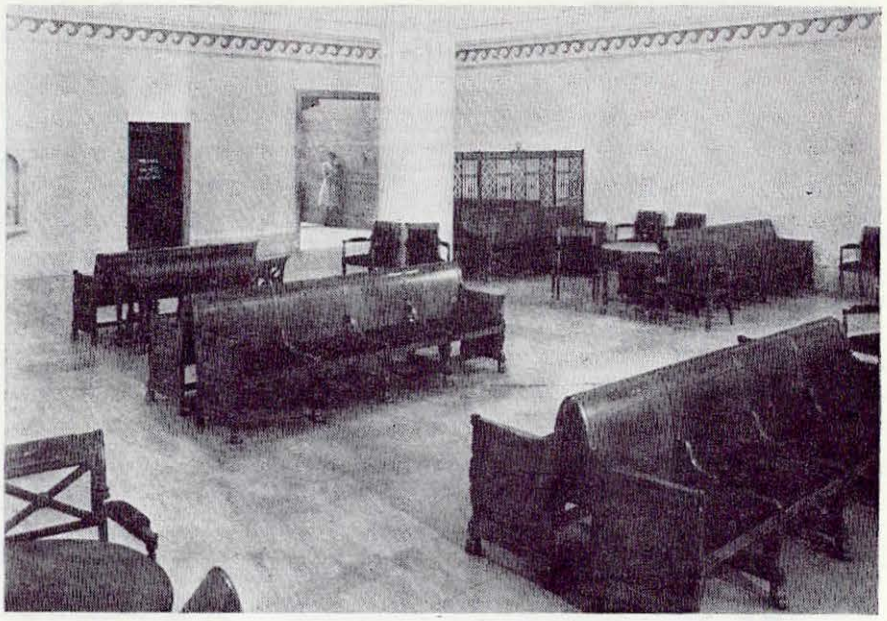
The women's waiting room, 54 ft. wide by 73 ft. long, with a ceiling height of 40 ft., has always been spacious and airy. The floor is of Tennessee marble and the walls and ceiling are of plaster. Though the walls have been painted several times since the station was completed in 1925, they have always been finished with a flat buff color, with little ornamentation, the monotony of this plainness being broken only by high windows at the west end and relatively small door openings on the east, or main waiting room, side. Special decorative treatment was limited entirely to the ceiling, which is coffered, with a Pompeian type of decoration in blues, yellows and dark reds.

The furniture in the room is American walnut, and the chairs and settees are upholstered in red silk mohair. Several

ornamental iron partition grills were set along the south wall, in the line of sight through the door to the main waiting room, to afford seclusion from the gaze of passers-by. These are now arranged to separate the women's waiting room and the new lounge area.

Decorative Treatment

The color motif selected is Burgundy red on a gray background. Accordingly, the walls were painted a light French gray and, because it would spoil the decorative effect if only the walls within the lounge area were given this treatment, the entire wall areas in the women's waiting room were painted this color. To break the possible monotony of the wall areas, two large murals, 14 ft. high and 20 ft. long, employing 863 color variations in the "Phoenix Bird" pattern, an English paper importation, were placed on each of the side walls. Since the existing ceiling was in good decorative taste, no work was done on it except to give it a thorough cleaning.



View of the women's waiting room adjacent to the lounge

The furnishings chosen for the new lounge are in harmony with the color scheme selected. They include pearl gray window draperies; a large dark gray and sand-colored rug with soft under-pad; five gray davenports; four love seats in a lighter shade of gray; ten lounge chairs in Burgundy red; and seven wing chairs in red tapestry for winter use, which are provided with flower-patterned slip covers for summer use. Other furniture includes four double writing desks with pull-up chairs, and sufficient small tables and stand lamps to complete the decorative balance. The four niches left in the west wall by the removal of the telephone booths were fitted with two of the writing desks and two of the wing chairs, forming attractive offsets from the room proper. Large and small potted plants on the tables add further to the home atmosphere.

Altogether, the effect achieved in the new lounge is one of quiet luxurious comfort, where women can go to rest, write letters, or visit between train arrivals and departures. That the new facility is appreciated is attested by the fact that the Union Station management has received many complimentary letters from women in all parts of the country.

Plans for the lounge were formulated and carried out under the direct supervision of the interior decorator, Ottlie B. Shiffer, LaGrange, Ill.

* * *

Remington typewriter with keyboard margin control permits the accurate setting of margins

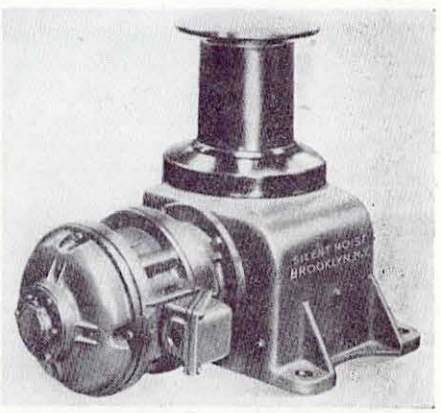
Remington KMC Typewriter

The Typewriter Division of Remington Rand, Inc., New York, has announced the new Remington KMC typewriter which features keyboard margin control. This new development brings margin control to the keyboard and is said to permit the typist to set corresponding margins instantly and positively by a flick of the keys. The readily accessible KMC keys are set to the right and left of the keyboard. In addition, this new typewriter employs Accelitype which is claimed to give accelerated type bar action and together with the personal touch regulator and finger fitted keys, is said to facilitate more efficient and uniform typing.

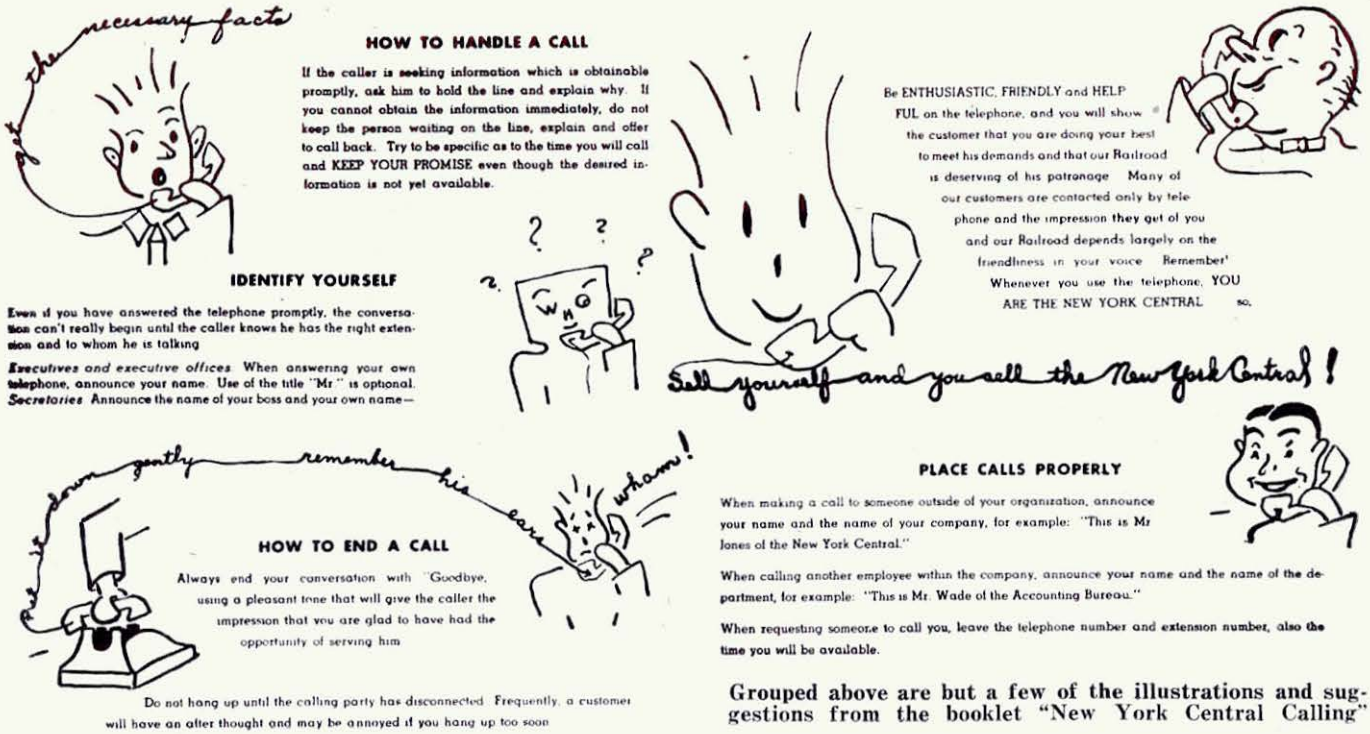
Electric Car Puller

The Silent Hoist & Crane Company, Brooklyn, N. Y., is offering a new model electric capstan car puller, which is available in 7½-hp. and 15-hp. sizes, capable of draw-bar pulls of 5,000 lb. and 10,000 lb., respectively. The motor and the gearing of the unit are integral and are completely enclosed, thus excluding dirt and water and, it is said, making the unit well suited for general outdoor use where equipment of this type is required. The unit has a worm-type reduction gear which is entirely enclosed and operates in a continuous bath of oil.

Stock units are said to be available for 220/440-volt current, and also for direct current service on application. Controls, car hooks, rope, snatch blocks and other accessories are also available.



The new electric capstan car puller


get the necessary facts
HOW TO HANDLE A CALL
If the caller is seeking information which is obtainable promptly, ask him to hold the line and explain why. If you cannot obtain the information immediately, do not keep the person waiting on the line, explain and offer to call back. Try to be specific as to the time you will call and KEEP YOUR PROMISE even though the desired information is not yet available.
IDENTIFY YOURSELF
Even if you have answered the telephone promptly, the conversation can't really begin until the caller knows he has the right extension and to whom he is talking
Executives and executive offices. When answering your own telephone, announce your name. Use of the title "Mr." is optional.
Secretaries. Announce the name of your boss and your own name—
Be ENTHUSIASTIC, FRIENDLY and HELPFUL on the telephone, and you will show the customer that you are doing your best to meet his demands and that our Railroad is deserving of his patronage. Many of our customers are contacted only by telephone and the impression they get of you and our Railroad depends largely on the friendliness in your voice. Remember! Whenever you use the telephone, YOU ARE THE NEW YORK CENTRAL so,
Sell yourself and you sell the New York Central!
PLACE CALLS PROPERLY
When making a call to someone outside of your organization, announce your name and the name of your company, for example: "This is Mr Jones of the New York Central."
When calling another employee within the company, announce your name and the name of the department, for example: "This is Mr. Wade of the Accounting Bureau."
When requesting someone to call you, leave the telephone number and extension number, also the time you will be available.
HOW TO END A CALL
Always end your conversation with "Goodbye," using a pleasant tone that will give the caller the impression that you are glad to have had the opportunity of serving him
Do not hang up until the calling party has disconnected. Frequently, a customer will have an after thought and may be annoyed if you hang up too soon

Grouped above are but a few of the illustrations and suggestions from the booklet "New York Central Calling"

Efficiency and Manners Analyzed in Novel Telephone Program

The New York Central tests the adequacy of its phone facilities and the voices of its employees in its campaign for improved telephone service

FOR over a year the New York Central has had in effect a program designed to save time and promote friendly relations in its telephone contacts both with the public and within its own offices. The program is two-pronged in that careful analyses of usage of all telephone equipment and facilities are followed by periods of instruction to employees who are the New York Central's representatives to the public.

The telephone program was organized by L. W. Horning, vice-president, personnel and public relations, and W. A. Jackson, general superintendent of telegraph and telephone. In charge of its execution Mr. Jackson has placed young women located at strategic points, who cover all offices in their general vicinity. The former experience of the women in such capacities as secretarial work, ticket selling, handling of reservations and telegraph work has proved invaluable in handling the problems arising in different departments and offices of the New York Central system which they are sent out to study.

The phase of the program undertaken first by the women involves a complete survey of the office currently being studied. The initial step is a consultation with all department heads, both to enlist their aid and cooperation and to find out about any existing difficulties which need special consideration or solution.

Diagrams of floor plans, plus careful study of the conditions existing in an office, are included in the study of the physical facilities made by the representatives, and the findings are included in their ultimate reports to the general supervisor. Marked on the diagrams are the locations of all phones, the accessibility of files or other sources of information to phones, the location of the switchboard, etc.

Necessary Changes Effected

It has been found that physical surroundings are reflected in tone of voice. Therefore, the visiting analyst often finds that such things as redecoration, soundproofing, or rearrangement of the switchboard facilities are advisable.

Other points carefully considered include the number of extensions, ensuring that there is equitable distribution among those who must handle incoming calls, the convenient arrangement of phones, the ability of the switchboard operators, proper supervision and breakdown of responsibilities of operators, and familiarity of operators with extension numbers. Several of these points are ascertained through the use of monitor equipment.

When the study of the office is completed a detailed report is sent to Mr. Jackson with recommendations. Often extensive changes in layouts are suggested, and when they are shown to be necessary for adequate, improved or efficient telephone service, they are put into effect, after being referred to the head of the department or office affected.

Instruction of Employees

The second part of the program deals with the analysis of the telephone manners of the employees, with instructions given wherever needed. Of great importance in this field is the use of a device called the "Mirrophone". Two telephones are wired to a Mirrophone, which records conversations, and through these two phones a characteristic conversation is held between two students. Automatic timing ends the recordings in 60 seconds, and the tape on which the conversation is recorded is ready for playback.

The New York Central's telephone analyst and the student listen critically to the Mirrophone recording which per-

mits chest and diaphragm tones, of which the speaker is unaware normally, to be reproduced. The expert and the class are then able to offer suggestions as to how the telephone voices just heard can be improved. Speakers, more often than not, are amazed at the way they themselves sound, and are among the first to note corrections which should be made. Arrangements are then made for a second Mirrophone recording, to be made approximately six weeks after the first.

The Mirrophone used in New York is owned by the New York Central, while those employed in other cities are acquired through arrangements with the local telephone companies.

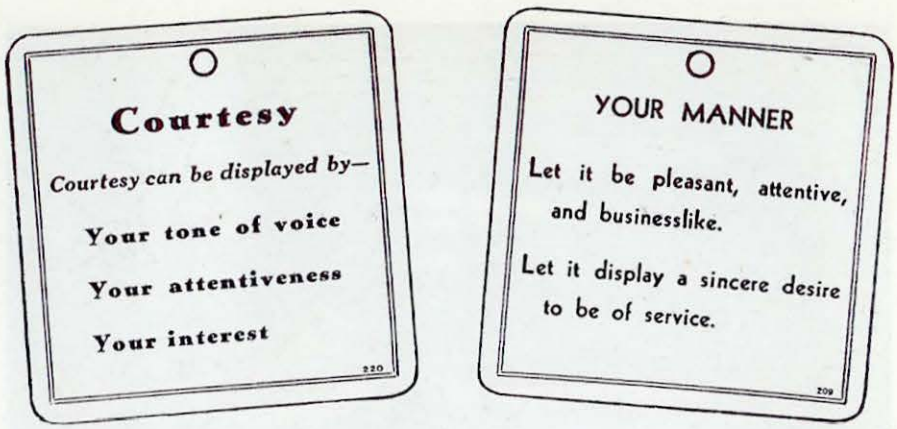
As a rule, ten employees are included in the one and one-half hour sessions given to correct deficiencies in tone and technique, and it has been found practicable to train representatives of different departments in one group. In limiting the number of those trained in one class, ten minutes of individual instruction can be given. Mr. Jackson states that already the course has improved the speech of some 10,000 employees, and others are receiving the same training.

Supplementary Training

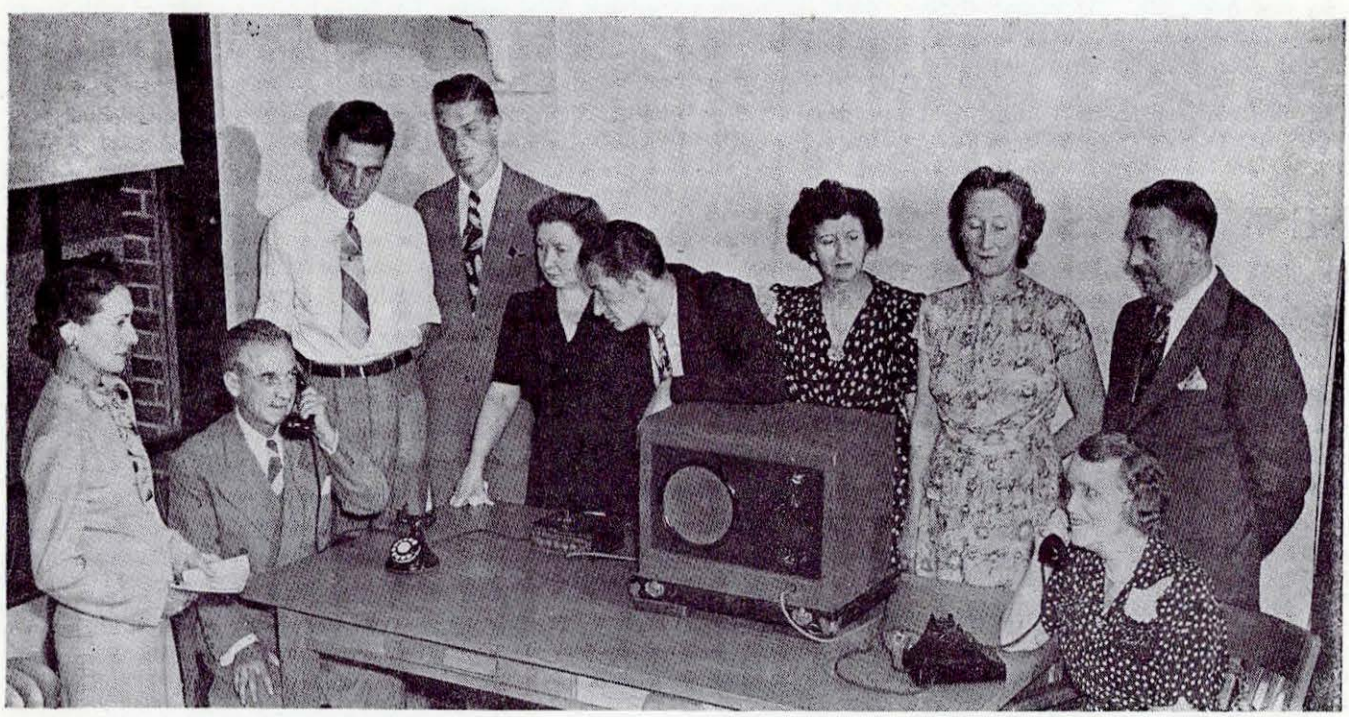
Supplementing the use of the Mirrophone tests to detect imperfections of tone is the study of a number of booklets as guides to better pronunciation, speech and telephone manners.

One of these publications, "New York Central Calling," contains suggestions to correct errors which the analysts have found to be most common through their surveys of the offices. A New York Telephone Company pamphlet, "The Voice with a Smile," explains how to attain proper tone and enunciation. "Who Is Hello?" stresses both the need and the time-saving quality of the proper identification by himself of the person answering the phone. "Company Manners," a booklet recently issued by the president of the New York Central, as well as "Telephone Efficiency," a film lent by the Bell Telephone Company, are other mediums of study by the groups.

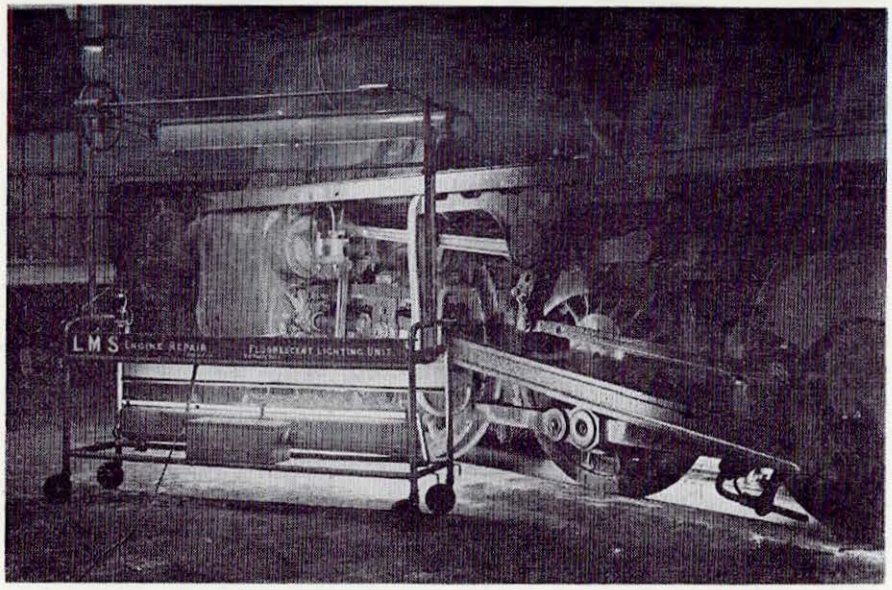
In the studies of the Central's offices conducted thus far, the suggestions for improving service stressed by the analysts run along the following tenor: Use of alphabetical indexes to encourage the time-saving habit of jotting down those numbers which are called frequently; proper and complete identification of himself by anyone answering a phone; arrangements to have the phone answered in the event that the person called must be absent; notification of the chief operator if an executive from another city is in the office and the extension at which he may be reached; use of courteous and complete expressions rather than monosyllables; and as close proximity as possible between the locations of telephones and the sources of information. Along with these recommendations, of course, are stressed common courtesy combined with a friendly tone of voice.



Small cards such as those above are sometimes hung on the switchboard as a constant reminder to telephone operators



The conversation of two students is recorded on the Mirrophone as the instructress (far left) and the rest of the class observe



Two fluorescent lamps mounted on a portable framework furnish effective side lighting for work required in the enginehouse

Portable Enginehouse Lighting

THE London Midland & Scottish (Great Britain) is systematically overhauling its enginehouse lighting and in the process has developed portable lighting units which afford suggestions for possible application on this side of the Atlantic. The relighting program employs three separate forms of lighting, namely, lighting from above, from the side, and from pits. As engine sheds fall due for re-roofing or rebuilding, opportunity is taken to install general overhead lighting, making use of 150-watt incandescent lamps in dust-tight cast-iron enameled reflectors fitted with hinged glazed covers. The lighting unit is large enough to take a 200-watt lamp, if necessary, and the lamps are connected alternately so that half of them can be switched off if not needed.

Inspection and repair work on locomotives necessitates good lighting from the side. Neither the old fashioned "duck" lamp nor the electric hand lamp wired for 40 or 50 volts has proved adequate as a means of supplementary lighting and a "wheeled lighting trolley" has been developed to meet this requirement. This mobile unit consists of a welded tubular structure on rubber-tired castors, and on it are mounted two 80-watt fluorescent tubular "daylight" lamps, 5 ft. long, which give almost shadowless lighting. The tubes are mounted horizontally, and the upper one, with its reflector, is on counter-balanced arms which allow it to be set at any level between 5 ft. and 6 in. above the floor. In the lowest position it lights the outside motion work of the locomotive, while in the uppermost position it can light the inside motion on locomotives which are so equipped.

The lower tube and its reflector direct light to the underside of the motion work, thus giving some of the advantages of pit lighting in locations where this is not provided. The fluorescent lamps operate at 200 volts, but the trolley can be fitted with a step-up transformer to take current from 50-volt handlamp receptacles. Of necessity the trolley is made rather narrow, the space through which it must pass being limited to that between columns and locomotives in straight sheds. The trolley is equipped with a tray for tools and a socket connection for a hand lamp to be used inside fireboxes, etc.

Underneath lighting, such as that required in inspection pits, has been supplied hitherto from filament lamps, but in future the L. M. S. will use fluorescent lamps. The tubes, 5 ft. long, with their auxiliary gear, are housed in a cast-iron water-tight unit, which fits into recesses in the pre-cast concrete walls of the pit. The lighting units are not mounted opposite each other, but are staggered to insure greater uniformity of illumination. The lamp housing is glazed with armor-plate glass. As the housing protrudes only ¾ in. into the pit, it causes no obstruction, and is not likely to be damaged by tools dropped accidentally.

* * *

NEW BOOKS . . .

Headlights and Markers, edited by Frank P. Donovan, Jr., and Robert Selph Henry. 406 pages. 8¼ in. by 5½ in. Bound in cloth. Published by Creative Age Press, 11 East Forty-fourth street, New York 17. Price $2.75.

Here is a collection of 17 railroad yarns by masters of that type of fiction, selected by editors who know a good story when they see one. In point of time they range from the Civil War to World War II; in geographical scope they range from the Union Pacific and the old narrow-gage Denver & Rio Grande to the Eastern Kentucky (now abandoned), the Southern and the Pennsylvania. The authors represented include Frank L. Packard, Harold Titus, Marquis James, Octavus Roy Cohen, Thomas Nelson Page, Cy Warman, Charles W. Tyler, William Wister Haines and others with whom railroad-story fans are familiar.

Apart from their main purpose, which is to entertain, these stories, as here collected, emphasize the advances in railroad technology and operating practices that have been made in the period they embrace. As Colonel Henry points out, in his introductory remarks, "in the time of the earliest stories, dispatching trains by telegraph was still something of a novelty, and automatic block signals were as yet undreamed of. In this one field of communications and signals there can be traced in the stories the evolution of the art of dispatching, the change from the telegrapher's key to the telephone and the loudspeaker, and the multiplication of communications circuits; the development and extension of the automatic block signals . . . ; and finally, the marvel of centralized train control. . . . Stories are to be found in what happens when something goes wrong, so railroad stories are, for the most part, stories of struggle. Many of them are stories of disaster narrowly averted, or perhaps not averted at all. Most of them do not deal with the ordinary, every-day work of railroading, but they do reveal, in flashes, something of how that work has been carried on in times past and, in some of the later stories, how it is done today."

The Role of Transportation in the Development of Vermont, by William J. Wilgus. 104 pages. 10¾ in. by 8¼ in. Bound in cloth. Published by the Vermont Historical Society, Montpelier, Vt. Price $3.00.

In this handsome volume a lifetime student of transportation has turned his attention to the history of the section where he resides, pointing out how the growth of the state has been influenced by the development of its facilities for transportation.

After outlining the relation of Vermont to the remainder of the country, and indicating its resources and physical characteristics, Colonel Wilgus has shown briefly how, through the years, external influences

and internal dissention have affected its current economic and social conditions. He then takes up, with appropriate comment, the rise (and in some cases the decline) of the principal forms of transportation as they developed within the state, associating them with the general historical background.

In order, the author discusses Vermont's primitive transport, steamboats, turnpikes, canals and railroads, concluding with a survey of the twentieth century transportation pattern which has resulted from the relationships between them. The 14 pages devoted to the story of the state's railroads begin with a comment on their genesis, following which come in turn what might be called thumbnail histories of the Central Vermont, Grand Trunk, Rutland, Boston & Maine, Maine Central, Canadian Pacific, Delaware & Hudson and St. Johnsbury & Lake Champlain, insofar as they are related to the theme of the volume.

An Outline of Railway Traffic Operation, by T. F. Cameron. 203 pages. 9 in. by 6 in. Bound in cloth. Published by the Railway Publishing Company, 33 Tothill street, Westminster S. W. 1, London, England. Price 12 shillings.

This copiously illustrated volume describes in a compact and logically organized way the operation of a railroad according to British practices and techniques. The material it contains was first presented in serial form in the (British) Railway Magazine. Following a general introduction are 18 chapters dealing with the various special categories of activity that are coordinated into a railroad operating and maintenance organization, the first broad division being between what the author calls train running problems and those peculiar to yard and terminal operation.

As the "staff" of the railroad is the foundation of all its accomplishments Mr. Cameron first explains how new employees, generally speaking, are recruited for the different operating departments, and how their advancement normally proceeds. Tied in with this is an outline of the departmental set-up, along with which the general scope of each department's work is summarized.

Succeeding chapters dealing with train operation outline the purposes and characteristics of basic operating rules, the capabilities and limitations of the signal systems employed on the British railroads, the development and use of employee timetables, and the operating practices applied to passenger and freight service. "The main passenger train problem," says the author, "is to run timetable trains to meet the public requirements not merely adequately but well, with a minimum occupation of the running lines, so as to leave as much line capacity as possible for freight trains," while the main question controlling freight operations, he points out, is "whether we are to run heavy loads at low speed, small loads at high speed, moderate loads at moderate speed, or how we should mix these policies to meet local conditions."

Train control, locomotive utilization, and the compilation and use of operating statistics are other subjects discussed in the road operating section of the volume, while the treatment of yard operation takes up the lay-out and utilization of "marshalling yards" and "goods sheds," engine terminal facilities, car distribution, and the management of trucking and dock operations. The final chapter deals with the requirements which must be met by the employee who aspires to success in what the British call traffic working, and the means by which the individual may hope to meet those requirements most acceptably.

COMMUNICATIONS

Disagrees with C. & O. on Pullman

WASHINGTON, D. C.

TO THE EDITOR:

Your editorial re the advertisement of the C. & O. appearing in your August 3 issue was constructive and diplomatic. As you say, the ad will not deceive readers of the *Railway Age*. But it will deceive a lot of other people. It seems to me this advertisement savors of the political variety. From reading some earlier ads of this company (and it is too bad they are over the signature of the C. & O., for they are doubtless the concoctions of a certain financial group influential in the C. & O.), and in conjunction with proceedings over several years relating to the dissolution of the Pullman group, it appears evident that a big game is going on, with the object of gaining by political methods what has failed to come about by orderly business procedure.

An intelligent appraisal of the charges made by this advertisement requires a review of the whole case against Pullman Incorporated; and reveals some interesting facts:

The decision in the initial round of the case, resulting in the separation of the Pullman Company from Pullman Incorporated, and its forced sale, has amongst its serious results the responsibility for some of the conditions of which the C. & O. complains. Whatever we might write about the "justice" of that decision, the next round brings out some results still more "phony". Bids were received in compliance with the court order; and, eventually, an award was duly made and sanctioned by the court. The bidding group closely allied with C. & O. lost out. The final outcome was not as appears to have been originally planned by the plaintiffs; for the sale (which, again, would have brought about renewed order in the sleeping car business, and accomplished just exactly what the C. & O. complains other railroads are uninterested in) was suspended, pending an appeal.

Thus, it is the group connected with C. & O. which is blocking an orderly solution to the sleeping car business, and not the other railroads, as charged. Keep in mind the connection of this group with the C. & O., through its board chairman, the important political connection it now has through its retention as legal counsel of the former chief government prosecutor in the case, and now this advertising campaign; and it requires no stretch of the imagination to see what is occurring. If "banker control" shifts from Wall street to Terminal Tower, what's the difference? When the shift cannot be made by orderly business and legal procedures, and resort is had to smear advertising, the proceedings have sunk to a low level.

Referring to specific accusations in the C. & O. advertisement: The figures as to the percentage of 25-35-year old cars, etc., are, presumably, correct. However, prior to the war emergency, I believe few of the older of these cars were in regularly assigned first-class service. Fortunately we had them when they were needed. Personally I get a much more comfortable and pleasant ride in a 25-year-old sleeping car than in the most modern day coach. I have noticed that Pullmans never grow old. They are continually equipped with up-to-date gadgets and improvements. Interiors have been remodeled to keep abreast of the increasing requests for private space. Virtually all in regular, pre-war service were air-conditioned. It makes not an iota of difference to me if my car is "streamlined" or "lightweight". It's the service and comfort inside that count. The weight is of concern to the operators, not the passengers. Streamlining means virtually nothing to such mass at ordinary speeds; and attracts only those patrons who are sold by the "eye-appeal" of something new.

I travel a great deal by both coach and Pullman; and I have yet to make my first uncomfortable ride in any Pullman. As long as I can remember, and I am sure for many years before that, there have always been varieties of private rooms available. The open section has always had the advantage of allowing passengers more readily to see the scenery on both sides of the track.

In lamenting that only 25 big railroads had ordered sleeping cars as of June 1, can the C. & O. count itself as one of the 25? Aside from the futility of immediately ordering cars that cannot be delivered, the C. & O. must remember that the Pullman Company has been out of the picture for several years due to the court decree; and the group with which the C. & O. chairman is connected is blocking the effort of the other railroads to organize a company for orderly acquisition of new cars. The facts are in sharp contrast to the accusations made in the ad.

If the C. & O. is so in the forefront of the new car plan, why haven't they scrapped all their old cars and bought a new fleet as they contend other railroads and the Pullman Company should have done long since? The last time I rode on the C. & O. (1945) all their company-owned equipment was the so-called "heavyweight", "non-streamlined", "outmoded" equipment. Personally I found this equipment splendid to ride in—coaches and diners. But the fact remains that the C. & O. has lagged behind many other railroads if they consider that not having streamlined, lightweight cars is a detriment.

The paragraph headed "We Will Wait No Longer" is just pure, operatic, dramatics.

"The C. & O. Repeats Its Offer". I have not seen any previous public announcement of any offer of the C. & O. to cooperate in a new sleeping car pool; but

invitations may have been sent privately to other railroads. But there certainly has been not only an offer, but action, by other railroads to form a new operating unit (to which the C. & O. was, presumably, invited); but the interests closely allied with C. & O. have blocked it by court order.

Reference to paying premium fares for riding in "these jittering tenements on wheels", requires the statement that the C. & O. itself charges this same premium; and, so far as I know, it has taken no steps to revise the fare. Remember, it is the railroad companies which charge this premium—not the landlord of the tenements.

As to the remark that people are eager to patronize the new equipment, I can take no exception to that. But, in my opinion, the success of the new trains has been due primarily to the intensive advertising, staffing with the best crews, extra services, and preferential operating and scheduling treatment. Do this to a train of standard cars, and I'll wager it would be successful too. The original "400" of the C. & N. W. indicated this. Of course I do not offer this as a reason for not buying new equipment; but there are other things that bring patrons even more than the newest equipment.

If the sponsors of this advertisement, or series of advertisements, are directing their fire primarily against the Pullman Company, I would like to report that, of quite a few passengers with whom I have discussed the effects of the court-ordered break-up of that company, practically 100 per cent have deplored it. To them Pullman has always been a symbol of comfortable, courteous, hospitable service.

This C. & O. ad is attempting to paint that railroad as a martyr. The mis-statements and half truths it contains are unworthy of that company.

G. B. GRUNWELL, C. E.

Crosser Bill A "Double-Crosser"

ST. PAUL, MINN.

TO THE EDITOR:

No matter how often I read the ambiguous language of the amended Crosser Act to "liberalize" the original Railroad Pension Act, I cannot see where it provides any real benefits to the railroad worker who has devoted the best years of his life to railroading.

There are but two conditions that are vital to a man expecting a pension: When will be get it and how much? The retirement age of 65 years, which is rather extreme for men engaged in hazardous work, is not reduced by a single year and the minimum total is now slightly increased but still makes private charity imperative if starvation is to be avoided.

A real joker in the bill is the fact that women, who as a rule enjoy longer lives than the men folks, may retire at 60 years, a brazen piece of class legislation that would hardly stand up in any court of justice. With all due respect to the women engaged in railroad business, they now earn the same rates as men and there is little moral justification to have them retire five years ahead of the male workers.

Proponents of this strange piece of legislation may proudly refer to certain sick benefits, but my contention is that railroad people are usually covered by sick and accident policies; and maternity cases have been the private concern of the citizens for so long that it seems rather absurd to provide pension funds for such a purpose.

Outside of having my rates substantially increased, I can see no good in the amended act; and as far as I am concerned it may be designated as the "Double-Crosser Act" from now on.

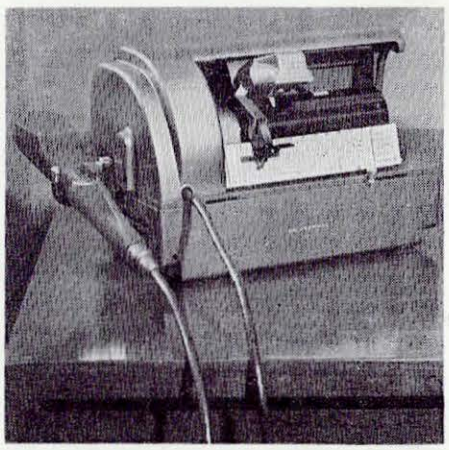
WOLFRAM HILL

* * *

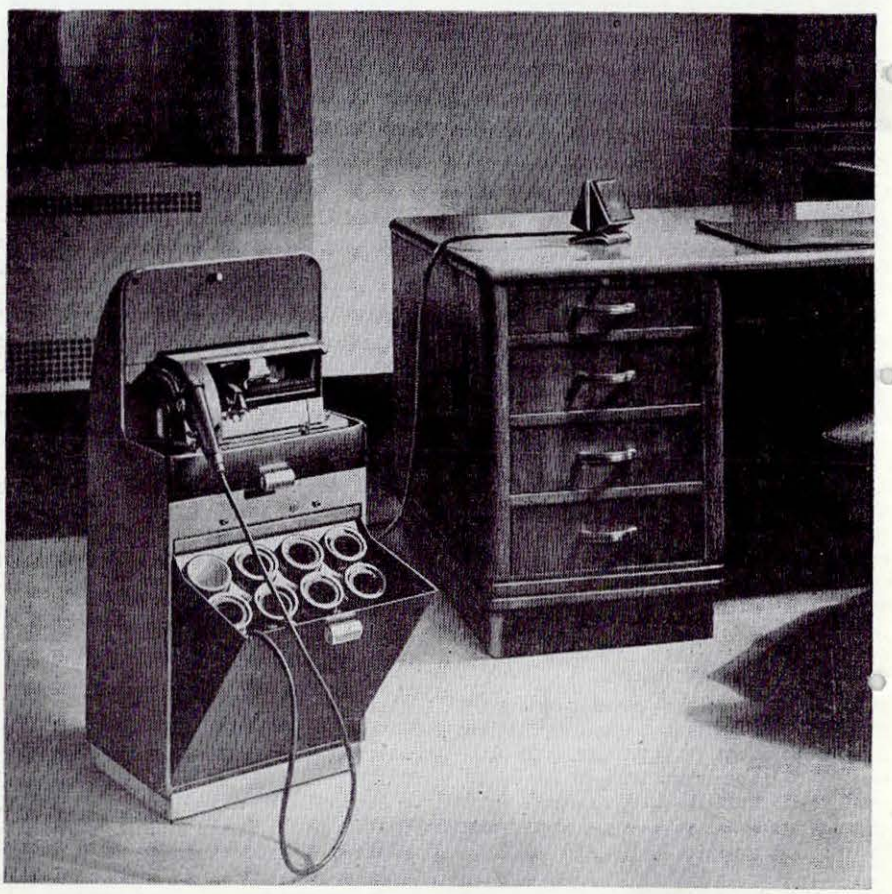
Electronic Dictating Machines

The Dictaphone Corporation, New York, has announced the development of two new electronic dictating machines, models AE and ADT. Operating principles of the Model AE are substantially the same as those of previous Dictaphone machines; however, it is said that the new feature of talking "at" a microphone rather than into a mouthpiece facilitates dictation for the dictator and assures greater clarity of reproduction. The hand microphone with "thumb button" which controls starting and stopping of the cylinder also serves as a loudspeaker which enables the dictator to listen back to his dictation. A further advantage claimed is that the sensitivity of the microphone permits dictation in open offices without distraction to nearby workers.

Model ADT substitutes for the usual Dictaphone mouthpiece a small desk microphone and hand or foot control which permits starting and stopping of recording at will. It is claimed that both ends of telephone conversations and over-the-desk conversations may be recorded by this device.



Easy and smooth recording of office dictation is achieved through the use of modern equipment



Microphone attachment of Dictaphone Model ADT permits handling notes and memos while dictating

GENERAL NEWS

$2 Per Diem Charge Proposed by Johnson

O.D.T director asks I.C.C. to investigate railroad car-hire practices

Suggesting that the per diem charge be increased from $1.15 to $2 in an effort to discourage "undue detention" of freight cars by railroads, Colonel J. Monroe Johnson, director of the Office of Defense Transportation, has asked the Interstate Commerce Commission to institute an investigation into arrangements with respect to car service (except as to tank and refrigerator cars), including the basis and rates of compensation paid by carriers for the use of cars not owned by the carrier using them. The commission has invited interested parties to submit by September 30 their views "as to the need for and desirability of such an investigation or as to other means that may be adopted to accomplish the object sought."

Short Lines Seeking Cut — Colonel Johnson's request was made in an August 29 letter to Acting Chairman Aitchison of the commission, the O. D. T. director submitting also the draft of a proposed order to institute the investigation he has in mind. The letter and proposed order were immediately made public by the commission with an accompanying notice from I. C. C. Secretary W. P. Bartel who said that the commission had decided to receive the views of interested parties "before otherwise acting upon the request." The per diem rate was increased from $1 to $1.15 on February 1, 1945, and in that connection the commission has before it the complaint wherein 162 short-line railroads are asking that it be cut to 95 cents.

The $2 rate suggested by Colonel Johnson would be effective "only during the existing car shortage emergency," according to his letter, which stated that reports of field agents "disclose innumerable instances of delays by rail carriers in utilizing available serviceable cars." The colonel had previously mentioned the recent reissue of O. D. T.'s minimum-loading orders and I. C. C. service orders imposing super-demurrage charges. These and other measures, he believes, "operate to curb improvident use of cars by shippers and receivers." He added, however, that this is "but one phase of car handling," since prompt use by shippers and receivers "does not afford absolute insurance of full car utilization—the other phase is the handling of empty cars by the carriers."

Then came the O. D. T. director's reference to field agents' reports of car detention attributable to the railroads. "Delays of as much as a week are recorded," he went on. "I have received numerous letters from individual shippers complaining of the laxity of carriers in moving empty cars. My Shippers' Advisory Committee bring me complaints of similar tenor. These reports and complaints pertain both to system and foreign cars. On the basis of material before me, I am satisfied that there is undue detention of railway cars—system and foreign—by rail carriers and that a more prompt use of system cars and return of foreign cars to proprietary lines by the carriers would materially increase the number of cars available to shippers and ameliorate existing and prospective shortages.

Emergency Measure — "To stimulate the prompt handling and return by hiring roads of foreign cars to owning roads, it is my judgment that an increase to $2 should be made in the present $1.15 per diem charge, and that perhaps a change should be made in the basis of compensation for hire, such measure to be effective only during the existing car shortage emergency. It is also my judgment that some measure should be adopted having for its objective the more prompt utilization by a carrier of its own cars on its own line.

"For the reasons above indicated, as director of the Office of Defense Transportation, I urge that the commission, upon its own initiative, institute an inquiry and investigation into the rules, regulations, practices, contracts, agreements, and arrangements with respect to car-hire, and particularly the basis of rates and compensation paid by carriers for the use of cars not owned by the carrier using them. Such an investigation should have for its purpose the establishment, if found necessary, of such reasonable rules, regulations, and practices and such a basis and rates of compensation as are calculated to promote the more prompt, economical, and efficient use and handling of cars. The inquiry and investigation should be broad enough in its scope to include rules, regulations, and practices of carriers with respect to the use and handling of their own cars on their own lines."

Reefers and Tank Cars Excepted—

(*Continued on page 419*)

Seven Months Income Totaled $11,000,000

Net railway operating income for the same period was $216,038,106

Class I railroads in the first seven months of this year had an estimated net income, after interest and rentals, of $11,000,000, as compared with $392,831,957 in the corresponding period of 1945, according to the Bureau of Railway Economics of the Association of American Railroads. The seven-months' net railway operating income, before interest and rentals, was $216,038,106, compared with $647,335,514 in the same period last year.

July's estimated results show a net income of $35,000,000, compared with $62,990,161 in July, 1945, while the net railway operating income for that month was $62,806,405, compared with July 1945's $98,775,650. In the 12 months ended with July, the rate of return averaged 1.52 per cent, compared with 3.95 per cent for the 12 months ended July 31, 1945.

Tax Credits Helped—The A. A. R. statement pointed out that certain railroads took into their accounts in July, as a credit to income, the carry-backs from 1944 and 1945 federal taxes authorized by the Internal Revenue Code. It added that net income for July without these credits was $30,640,000, instead of the $35,000,000 reported with them. For the seven months ended July 31, without carry-back credits, the railroads suffered a deficit in net income of $42,200,000, as against a reported net income of $11,000,000 with those deductions from federal tax accruals.

Gross in the seven months totaled $4,251,347,767, compared with $5,493,021,122 in the same period of 1945, a decrease of 22.6 per cent, while operating expenses amounted to $3,627,489,634, compared with $3,743,337,174, a decrease of 3.1 per cent.

Sixty-two Class I roads failed to earn interest and rentals in the first seven months, of which 26 were in the Eastern district, 11 in the Southern region, and 25 in the Western district.

CLASS I RAILROADS—UNITED STATES

	1946	1945
Month of July		
Total operating revenues	$674,040,105	$795,698,464
Total operating expenses	542,164,290	548,813,150
Operating ratio—per cent	80.44	68.97
Taxes	55,091,602	131,538,701
Net railway operating income (Earnings before charges)	62,806,405	98,775,650
Net Income, after charges (estimated)	35,000,000	62,990,161
Seven Months Ended July 31, 1946		
Total operating revenues	$4,251,347,767	$5,493,021,122
Total operating expenses	3,627,489,634	3,743,337,174
Operating ratio—per cent	85.33	68.15
Taxes	322,715,705	993,293,642
Net railway operating income (Earnings before charges)	216,038,106	647,335,514
Net income, after charges (estimated)	11,000,000	392,831,957

Class I roads in the Eastern district in the seven months had an estimated deficit of $41,000,000, compared with a net income of $157,607,320 in the same period of 1945. For July, their estimated net income was $14,000,000, compared with a net income of $24,336,001 in July, 1945.

The same roads in the seven months had a net railway operating income of $49,177,353, compared with $276,328,307 in the same period of 1945. Their net railway operating income in July amounted to $27,326,786, compared with a net railway operating income of $40,718,352 in July, 1945.

Gross in the Eastern district in the seven months totaled $1,872,201,617, a decrease of 19.7 per cent compared with the same period of 1945, while operating expenses totaled $1,653,589,922, a decrease of 3.1 per cent.

In the South—Class I roads in the Southern region in the seven months had an estimated net income of $2,000,000, compared with a net income of $54,971,047 in the same period of 1945. For July, they had an estimated net income of $1,300,000, compared with a net income of $6,140,648 in July, 1945.

The seven-months' net railway operating income in the Southern region was $37,961,441, compared with $91,492,949 in the same period of 1945. The net railway operating income in July amounted to $5,928,066, compared with $11,008,504 in July, 1945.

Operating revenues in the Southern region in the seven months totaled $609,293,358, a decrease of 21.4 per cent compared with the same period of 1945, while operating expenses totaled $512,134,129, an increase of 1.5 per cent.

Class I roads in the Western district in the seven months had an estimated net income of $50,000,000, compared with $180,253,590 in the same period of 1945. For July, they had an estimated net income of $20,000,000, compared with a net income of $32,513,512 in July, 1945.

Those same roads in the seven months of 1946 had a net railway operating income of $128,899,312, compared with $279,514,258 in the same period of 1945. Their net railway operating income in July amounted to $29,551,553, compared with $47,048,794 in July, 1945.

Gross in the Western district in the seven months totaled $1,769,852,792, a decrease of 25.9 per cent compared with the same period of 1945, while operating expenses totaled $1,461,765,583, a decrease of 4.6 per cent.

Boston & Maine Discards Electric Locomotives

Electric locomotives which for the past 36 years have hauled Boston & Maine freight and passenger trains for 4¾ miles through the Hoosac tunnel under the Berkshire hills ceased operation on August 25 as Diesel-electric locomotives took over complete operation of all through trains on the Fitchburg division main line. The change also marks the passing of all steam locomotive operation on the portion of the railroad's main line between Troy and Mechanicville, N. Y., and Greenfield, Mass.

With the Boston & Maine's new Diesel-electric locomotives hauling both passenger and freight trains, the trains now pass through the tunnel without delay of stopping at either end to attach and detach electric engines.

Railroad engineering crews will start immediately to remove the overhead wires and other electric apparatus which was necessary for the electric locomotive operation.

M. W. Clement to Receive Vermilye Medal

Selection of M. W. Clement, president of the Pennsylvania, to receive the Vermilye Medal of the Franklin Institute of Philadelphia, Pa., was announced on September 3 by the secretary and director of the institute, Dr. Henry Butler Allen.

The Vermilye Medal is presented every two years in recognition of outstanding contributions in the field of industrial management. Mr. Clement receives the award for his "conspicuous accomplishments . . . in a time when the organization and facilities under his administration were taxed to the utmost by the war burden." It will be presented to him by Charles S. Redding, president of the Franklin Institute, in ceremonies to be held in Franklin hall, Philadelphia, on October 4.

Established in 1939 by the late William N. Vermilye, then vice-president of the National City Bank in New York, the Vermilye Medal was first presented in that year to Lewis H. Brown, president of the Johns-Manville Corporation. In 1941 it was awarded to William S. Knudsen, director general of the Office of Production Management, and in 1943 to Walter S. Gifford, president of the American Telephone & Telegraph Company.

Coal Research Group Studies East St. Louis

"The fundamental principle of smoke abatement is not to burn smoke after it is formed, but to prevent its formation in the first place," William S. Major, development engineer of Bituminous Coal Research, Inc., Pittsburgh, Pa., told a group of engineers assembled recently in East St. Louis, Ill., to begin a survey of 100 local industries, hotels, apartment buildings and business establishments.

Smoke may be prevented, the representative of the national research agency of the bituminous coal industry said, by the use of overfire jets to improve combustion efficiency. The jets do this by forcing air into the furnace where it is needed and mixing it with unburned gases. If an excess of air is already present, the jets mix this air with the combustibles.

The speaker, who appeared on invitation of the Smoke Abatement Committee of the East Side, also stated that suitable methods for installing jets are given in a new booklet, "Application of Overfire Jets to Prevent Smoke in Stationary Plants," just published by B. C. R. Known as Technical Report No. VII, the publication analyzes the problem, gives design characteristics common to both blower jets and steam-air jets, provides design and construction information, cites practical examples of jet locations, discusses muffling to decrease noise and furnishes facts about flue gas jets.

As a parting injunction, Mr. Major reminded the engineers representing industries and the railroads that coal users should "fire wisely and keep equipment in order."

"Overfire jets are not a cure-all," he said. "They should not be expected to whitewash careless operating practices. They can, however, correct for many deficiencies." It was reported that 26 railroads have at least 1,000 locomotives equipped with approved overfire air jets; that many cities, including Chicago, Ill., with over 1,000 installations, have been outstandingly successful in utilizing jets to prevent smoke from stationary plants. Birmingham, Ala., and Nashville, Tenn., are other cities in which jets have attained wide-spread use.

New R. I.-S. P. Train To Run Chicago To Los Angeles

A new, high-speed sleeping car and coach train, to be known as the "Imperial," will be placed in service between Chicago and Los Angeles over the Golden State route of the Chicago, Rock Island & Pacific and Southern Pacific, effective October 6.

The new train, which will operate on a schedule of 52¾-hr., will run via the Imperial valley of California, giving that section through service to and from the East and daylight rail service to and from Los Angeles for the first time. In addition to through sleeping cars and coaches between Chicago and Los Angeles, through sleeping cars will be operated between Chicago and Tucson, Ariz., Chicago and Phoenix, Ariz., and Kansas City, Mo., and Los Angeles. Other equipment will include a dining car and a club-lounge car. The train will make close connections, in both directions, at Kansas City, Mo., with the "Twin Star Rocket" between Kansas City, Des Moines, Iowa, and Minneapolis, Minn., and St. Paul.

The "Imperial" will leave Chicago daily at 11:00 a.m.; arriving in Kansas City at 10:30 p.m.; El Paso, Tex., at 5:20 p.m., the next day; Tucson at 12:40 a.m., the second morning; Phoenix at 3:20 a.m.; Calexico, Cal., at 8:00 a.m.; El Centro, Cal., at 8:15 a.m.; and Los Angeles at 1:45 p.m. Eastward it will leave Los Angeles at 11:00 a.m.; El Centro at 4:20 p.m.; Phoenix at 11:20 p.m.; Tucson at 2:00 a.m. the next morning; El Paso at 9:20 a.m.; Kansas City at 6:00 a.m. the second morning; and arrive in Chicago at 5:15 p.m.

Wolmanized Lumber Production Increases in First-half

Production of wolmanized lumber—wood pressure-treated with preservative salts as a protection against termites and fungi—reached the highest figure in four years during the first six months of 1946, according to J. F. Linthicum, president, American Lumber & Treating Co.

"The all-time high mark in 1942 topped this year's halfway production by less than one per cent," Mr. Linthicum said. "Wolmanized, creosoted and flameproofed wood from January through June of this year was 35 per cent over the first half of last year, and approximately 10 per cent ahead of the same period in 1940."

Mr. Linthicum added that if adequate supplies of creosote had been available,

treatment of railroad ties, transmission line poles, marine piling and commercial lumber would have topped 1942's record output.

Partial elimination of government curbs on civilian construction accounted largely for the rise in production of wolmanized products. He added that a similar increase in volume could have been achieved in the last half of 1945, if there had been prompt clearance for reconversion through revision of government directives which in fact continued to facilitate production of military items over civilian.

A. S. F. Color-Sound Moving Picture

The American Steel Foundries, Chicago, has just received from Carl Dudley Productions, Beverly Hills, Cal., the first color-sound moving picture which it is believed has ever been made to show the exact functioning of a mechanical appliance in railway road service.

In this instance, the relatively much smoother riding qualities under all speed, load and track conditions of A. S. F. Type A-3 Ride control freight-car trucks, with long-travel springs and friction-snubbed bolsters, are compared with the performance of conventional A. A. R. trucks having shorter springs and no snubbing device. Trucks of these two types were installed for purposes of comparison under two identical A. S. F. test box cars which have made over 100,000 miles of service in connection with the intensive truck development work conducted by this company during the last few years. For picture-taking purposes, the most recent test runs were made with a special train on a railroad main line in California where traffic, weather and lighting conditions were most favorable for moving picture production.

The two test cars used were fully equipped with accurate shock-indicating and recording mechanism of the latest type, including Miner accelerometers, and easy means of varying the load from zero to full so as to show truck action under different load conditions. Necessary camera equipment and floodlights were mounted on brackets under the cars and directed towards the trucks to give both direct forward and outside quartering views which were never before available. Metal containers with windows protected the cameras and lights against damage from materials accidentally thrown up from the roadway and all camera equipment was operated by remote control. Train stops had to be made to change camera adjustment and film exposure time.

The special train was operated safely at speeds up to 92 miles an hour when both test cars were equipped with Ride-Control trucks, the moving picture giving a permanent visual record of the relatively smooth truck action even at this high speed. The fact that the picture was taken in color gives unusually clear definition and contrast between lights and shadows so that the movement of springs, bolster, wheels and brake equipment can be analyzed and studied. Sound effects also are faithfully registered for what they may be worth and explanations made vocally as the film progresses.

This new color movie, in the introductory part, presents considerable information of general interest regarding competitive transportation conditions which railroads must meet and emphasizes the importance of safe, smooth-riding and economical freight-car trucks in railway service of the future. The picture was taken primarily with a view to giving railway officers and car department supervisors a clearer idea of what actually happens under freight cars in general service and at modern high operating speeds.

Controllers Institute Elects Officers

John V. Bowser, vice-president and comptroller of the Westinghouse Air Brake Company, Wilmerding, Pa., was elected president of the Pittsburgh Control of the Controllers Institute of America.

At the annual meeting of the Toledo Control, J. V. Britt, assistant secretary and assistant treasurer of Unitcast Corporation, was elected secretary-treasurer.

The following railway executives were elected by their respective controls as directors: R. H. B. Adams, executive vice-president of City Railway Co., who was re-elected by the Dayton Control; also re-elected was E. A. Clancy, controller of the New York Central, by the New York City Control; Grant E. Chessman, comptroller of the Elgin, Joliet & Eastern, by the Chicago Control; Thomas A. Dunbar, controller of Boston Elevated Railway, by the Boston Control; C. Donald Peet, chief accountant and financial officer of the Missouri Pacific, by the St. Louis Control; re-elected was J. A. Tauer, controller of the Great Northern at St. Paul, by the Twin Cities Control; and Hugh J. Ward, assistant controller of the Pennsylvania, by the Philadelphia Control.

The Institute is a technical and professional organization of controllers devoted to the improvement of controllership procedure.

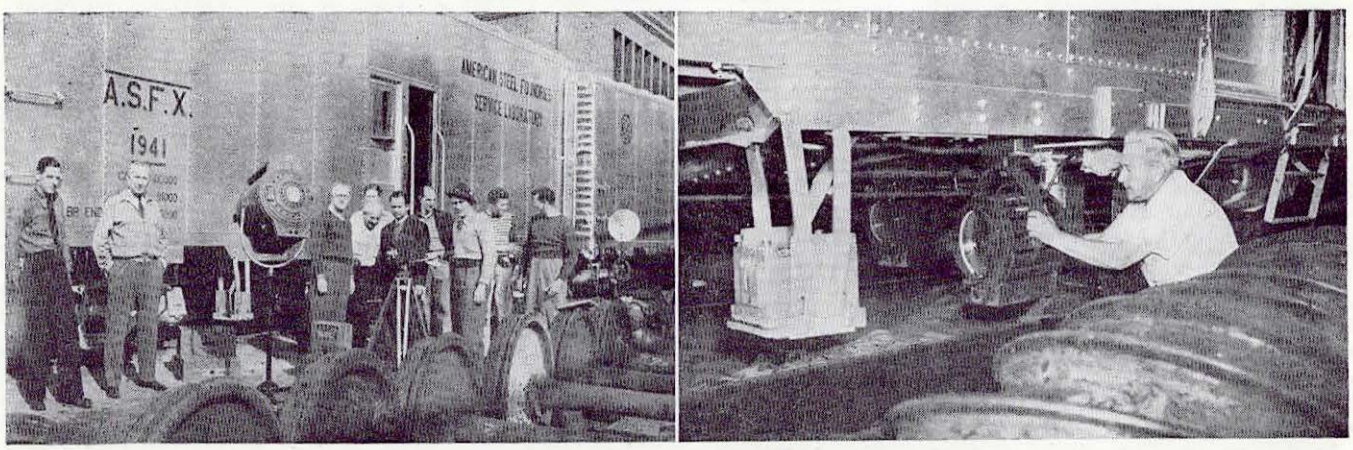
What Airline Ads Fail to Say

Diverging from the traditional course of railroad newspaper advertising, the Southern Pacific recently has gone to the public with its good-natured contention that airline executives, who have had plenty to say in their advertising about railroad service and particularly about railroad fares, are "a little hazy about the railroad business."

The Southern Pacific says "we accept the fact that airplanes have one primary advantage—speed. But we think trains have a lot of advantages, too, including economy and plenty of room to move around."

Remarking that "we don't like to mention a competing service in our advertising," the railroad makes the point that "the airlines compare their fares with railroad fares and come to the conclusion that air travel is cheaper. But they always compare the one way fares. Since airlines make no reductions on round trips for travel in this country, the airline people apparently think the railroads don't, either. As a matter of fact, railroads make substantial reductions for round trip tickets. We figure most people have to get home sometime."

Giving figures to show the advantages of rail round trip fares, the Southern Pacific advertisement continues: "The airlines, in comparing fares, always add in the cost of a Pullman lower berth. A comparison of a seat in a plane and a berth on the train is the same as comparing a chair with a bed. . . . The airlines don't seem to know about our "Daylights," so they don't mention the fact that you can go from San Francisco to Los Angeles and back on these luxurious streamliners, the fastest trains between the two cities,



A. S. F. test cars and crew which took color-moving picture—(Right) Close-up of camera box and flood lights under car

for $11.90 round trip or $3.25 less than the one way fare by plane.

"And while we're talking about economy of rail travel we'd like to mention that we carry children free (accompanied by adults) when they're under 5 years of age, and at half fare when they are 5 to 11 inclusive. And children get seats for their individual use. The airlines charge full fare for children except for a babe in arms."

Other considerations the airline advertisements do not stress, the Southern Pacific continues, are the bus fares and travel time to and from the airports, and the limited baggage allowance.

North Western Modernizes Its Milwaukee Ticket Office

A newly modernized ticket office, which eliminates old style ticket bins, change drawers and filing cabinets, has been opened in Milwaukee, Wis., by the Chicago & North Western. The office, according to the road's officers, employs the latest innovations in modern design and materials, and features recessed office equipment, made unnoticeable by paneling.

Highlighting the new fixtures are lucite guide rails and coat hangers; colored vitrolite glass; marblette floor; wide, leather-upholstered seats for patrons; and an S-shaped counter of light walnut. The remodeled quarters have two entrances and are connected by an inner stairway with a modernized freight office on the second floor.

Truckers' Strike in New York Blocks Freight Movement

A strike of truck drivers belonging to certain American Federation of Labor organizations, which began this week, has seriously curtailed the transfer and delivery of freight, particularly l. c. l. shipments, in New York and vicinity. To avert serious congestion, the Association of American Railroads has imposed an embargo on freight consigned to New York, and to certain New Jersey terminals, except perishables, coal and oil and other specified carload shipments.

Railway Express Agency service in New York has not been affected by the strike, as its truck drivers are not members of the striking organization. However, an embargo has been placed on intra-city shipments by express.

Freight Car Output Declined in July, Small Reports

A shortage of materials, particularly steel castings and lumber, resulted in a slight decrease in the number of freight cars produced in July, as compared with the previous month, it was pointed out last week by Civilian Production Administrator John D. Small in his latest "Monthly Report on Civilian Production." According to the report, 3,961 freight cars, of which 3,432 were for domestic roads, were manufactured in July, as compared with 4,024 in June.

At the same time, the report disclosed that unfilled orders increased sharply from 84,500 cars to 96,000. It said that the entire increase resulted from orders placed by domestic roads, leaving the orders for export unchanged at 43,000 cars and boosting the domestic unfilled orders to 53,000.

Despite the decrease in freight car production, the output of passenger cars increased from 56 cars in June to 61 cars in July, which, according to the report, indicates "an improved flow of the components and specialties which had severely retarded earlier production." Although none of the cars produced in July were for export, there still remains a four-year backlog of orders on the manufacturers' books amounting to 2,540 cars for domestic roads and 473 for export.

Production of locomotives in July amounted to 68 units, of which 61 were for export, as compared with 111 produced in June and 146 in May, when locomotive production was resumed on full scale following an extended work stoppage. A total of 86 Diesel-electric locomotives, including 11 for export, was produced in July, as compared with 97 in June and 66 in May. Three Diesel-electrics were shipped overseas in June and four in May.

Alaska Gets Troop Cars

The Department of the Interior has announced that partial rehabilitation of the facilities of the Alaska Railroad is being accomplished through the conversion for its use of equipment now rated as government surplus, including 20 Diesel-electric locomotives, 300 troop cars, 36 tank cars and 50 kitchen cars. Secretary of the Interior Krug has been in Alaska discussing improvement of the railroad with John Johnson, general manager. The reconditioning of Army Diesels for Alaska was reported in *Railway Age* of August 17, page 308.

"Nonscheduled" Air Lines Offer "Aid" in Car Shortage

That the air freight industry, which says it can move 5,000,000 ton-miles of freight a day, be included in the government's emergency transportation program to alleviate the freight car shortage has been suggested to John R. Steelman, reconversion director, by the Independent Airfreight Association, representing principal nonscheduled air freight carriers, in a telegram from H. Struve Hensel, association counsel.

In part it said: "Air freight today is the newest and fastest growing freight transportation industry in the country. Every section is being covered by one or more lines. Today more than 520 freight planes are being flown by non-scheduled operators. Depending upon their type they can carry payloads of 5,000, 8,000, and 10,000 lbs. Thus the government and industry have at their service a means of shipping as much as 5,000,000 ton-miles of perishable produce, machinery, dry goods and other merchandise from coast to coast every day.

"Producers, manufacturers and other shippers in key areas near New York, Boston, St. Petersburg, Chicago, Detroit, Denver, San Antonio, Los Angeles, San Francisco and Seattle already make use of air freight in shipments that demand speed, economy, minimum of handling and special care. Members of the Independent Air Freight Association and, I am certain, other non-scheduled air freight operators in this industry, are ready and able to assist the federal government and industry in offsetting the freight car shortage that threatens to disrupt our industrial economy."

Freight Car Loadings

Reports of car loadings for the week ended Saturday, August 31, were not available as this issue went to press.

Loading of revenue freight for the week ended August 24 totaled 884,957 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For the Week Ended Saturday, August 24

District	1946	1945	1944
Eastern	169,968	156,925	164,777
Allegheny	191,874	174,768	196,876
Pocahontas	64,567	57,300	58,406
Southern	129,626	118,354	121,718
Northwestern	129,463	140,554	147,009
Central Western	136,029	138,762	140,641
Southwestern	63,430	66,763	75,444
Total Western Districts	328,922	346,079	363,094
Total All Roads	884,957	853,426	904,871
Commodities:			
Grain and grain products	46,481	66,768	49,327
Livestock	15,711	16,457	15,919
Coal	183,957	180,264	178,414
Coke	14,143	11,725	13,816
Forest products	52,245	42,625	52,391
Ore	63,389	75,251	81,562
Merchandise l.c.l.	120,575	105,523	109,673
Miscellaneous	388,478	354,813	403,769
August 24	884,957	853,426	904,871
August 17	887,570	652,832	886,623
August 10	899,084	870,002	895,181
August 3	898,395	863,910	889,594
July 27	910,515	886,430	909,490
Cumulative total, 34 weeks	25,992,969	27,898,000	28,321,300

In Canada.—Car loadings for the week ended August 24 totaled 73,469 cars as compared with 70,863 for the previous week and 74,329 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

Totals for Canada:	Revenue Cars Loaded	Total Cars Rec'd from Connections
August 24, 1946	73,469	34,563
August 25, 1945	74,329	31,058
Cumulative totals for Canada:		
August 24, 1946	2,283,468	1,153,792
August 25, 1945	2,327,334	1,231,482

Chicago-Pacific Coast Streamliners to Run Daily

Daily streamliner service between Chicago and the major cities of California will be inaugurated on September 30, by the Atchison, Topeka & Santa Fe and by the Chicago & North Western—Union Pacific—Southern Pacific.

On the Santa Fe, the "Super-Chief," all-Pullman streamliner and "El Capitan," coach streamliner, will each be placed on every other day schedules in both directions between Chicago and Los Angeles, with the "Super-Chief" departing from both terminals on the even-numbered days of the month and "El Capitan" on the odd- numbered days, except this train will not depart from either terminal on the 31st

of any month. The overall schedule of 39¾ hr. will be unchanged.

On the C. & N. W.—U. P.—S. P. route, the "City of Los Angeles," 39¾-hr. coach-Pullman streamliner, will leave both Chicago and Los Angeles every Monday, Wednesday and Friday, instead of every third day as at present, while the "City of San Francisco" will depart from its terminals in Chicago and San Francisco-Oakland every Tuesday, Thursday and Saturday instead of every third day. At the same time the number of monthly trips of the City of Portland," a similar streamliner operating between Chicago and Portland, Ore., on a 39¾-hr. schedule, will be increased from five to six. Departure dates of this train are scheduled for the 3rd, 8th, 13th, 18th, 23rd and 28th of each month, westbound from Chicago, and the 1st, 6th, 11th, 16th, 21st and 26th of each month, eastward from Portland.

New York Central Now Has 153 New Pullman-Built Coaches

The New York Central and the Pullman-Standard Car Manufacturing Company jointly have announced the completion on September 3 of that road's order for 153 stainless steel coaches. On a special inspection trip from Grand Central Terminal, New York, to Harmon, N. Y., the New York Central on that day exhibited five of the new coaches which are designed to offer the mass transportation market luxury accommodations in through service in such "name" trains as the "Empire State" and the "Pacemaker."

Fred H. Baird, general passenger traffic manager of the New York Central, and James B. Rosser, vice-president of Pullman-Standard, said the order was the largest number of new passenger cars ever delivered to one railroad within a year's time.

The new coaches, completely air-conditioned and featuring reclining seats and individually controlled fluorescent lighting, are the first units of the New York Central's post-war passenger car fleet, planned as a $56,000,000 answer to the competition of the automobile, the bus and the airplane, officers of the road said.

Many of the new coaches already are in service on regular runs, Mr. Baird announced. The first of the new series, he pointed out, was delivered by Pullman-Standard on February 20, 1946, and was the first new railroad passenger car started and delivered after V-J Day.

Mr. Rosser said that production difficulties never before encountered by his company in 80 years of car building had to be overcome in completing the 153-car order. "Since our plants are capable of turning out 7 streamliners a day when operating at capacity," he stated, "we had originally scheduled these coaches for completion in the late spring of this year. Our production schedules, however, were hard hit by the coal and steel strikes and especially by strikes in suppliers' plants. We were able to complete this order in a year's time only by installing parts as we received them, regardless of their regular order of installation."

The New York Central has on order 567 more coaches, all-room sleeping cars, observation-lounge cars, dining cars and other types, Mr. Baird said. "When all our equipment has been received and placed in order," he added, "the road will have a total of 52 modern, streamlined trains offering the ultimate in safe, comfortable and economical travel. With this kind of equipment, you can be sure the New York Central will more than maintain its share of the travel market."

Car Service Orders

Amendment No. 1 to Service Order No. 498 has been issued by the Interstate Commerce Commission to set back from August 31 to January 10, 1946, the expiration date of that order which directs the Southern Pacific to divert to the Pacific Electric at Colton, Calif., traffic moving to Los Angeles Harbor and Long Beach.

The Office of Defense Transportation has added Montana and Utah to the list of states from which shipments of new fresh harvested carrots may be made under the general permit modifying as to such freight the loading requirements of ODT General Order 18A, Revised. Other states included in the general permit are California, Arizona, Idaho, New Mexico and Oregon. The action pertaining to Montana and Utah was taken in Amendment 1 to General Permit ODT 18A, Revised-8, and became effective September 5.

Passengers are shown boarding one of the 153 new coaches received by the New York Central from the Pullman-Standard Car Manufacturing Company. The fluted sides of the coaches heighten their streamlined appearance

$2 Per Diem Charge Proposed by Johnson

(*Continued from page 415*)

The proposed order which Colonel Johnson submitted to the commission was drawn along the foregoing lines, and the respondents in the investigation would be "all common carriers by railroad subject to the Interstate Commerce Act and all other persons owning or leasing freight cars (except tank and refrigerator cars) to common carriers by railroad engaged in interstate and foreign commerce."

The O. D. T. director's letter also mentioned his pending recommendation that the government finance, through the Reconstruction Finance Corporation, the construction of 50,000 new box cars for lease to the railroads. "However," it added, "if this program is undertaken, it is improbable that cars will be available under it until sometime during 1947. Hence, it is necessary to consider other means and measures to increase the availability of cars during the emergency." Of the emergency, the letter had this to say:

"As the commission is aware, the demands now being made upon the railroads of this country for freight cars by shippers are not being adequately met. Moreover, the outlook for the immediate future is that there will be an increase in shipper demand. While the situation is one of immediate and serious concern to shippers and receivers of freight, the implications are such as to endanger the government's reconversion program and to adversely affect the welfare of the country at large.

"As of August 10, 1946, based on data collected by the Association of American Railroads, there were car shortages in every region in the United States except the Pocahontas region, where a nominal surplus (53 cars) was indicated. According to information at hand, the demand for freight cars for the past three months has exceeded the available supply. The peak of the demand is not expected to be reached for several months."

Katy and Frisco Will Pool St. Louis-Dallas L.C.L. Traffic

Acting upon consideration of applications filed by those roads, the Office of Defense Transportation has ordered the Missouri-Kansas-Texas and the St. Louis-San Francisco to pool less-than-carload shipments of refrigerated and perishable merchandise from St. Louis, Mo., to Dallas, Texas. The action, taken in Supplemental Order ODT 1, Revised -3, became effective August 31.

According to the O. D. T., it is the first such action to be taken under the

provisions of its l.c.l. freight order, General Order ODT 1 Revised, which requires carriers to formulate plans for the pooling of merchandise traffic between two or more points in order to effect compliance with that order's minimum loading requirement of 20,000 lb.

The O. D. T. said that the Katy will forward merchandise cars from St. Louis to Dallas on Mondays, Wednesdays, Thursdays and Saturdays and the Frisco on Tuesdays and Fridays. The order does not prohibit the loading of non-refrigerated, non-perishable merchandise in the same car with refrigerated perishable merchandise when loaded for the purpose of complying with the order's loading requirements.

The O. D. T. also announced the modification of carload requirements on shipments of summer apples from Virginia. The action, taken in General Permit ODT 18A, Revised-19, became effective August 30 and will expire on October 15. Under the general permit, Virginia shippers of summer apples may forward such freight at carload rates provided the quantity shipped as bulk freight is not less than 29,000 lb.

M. P. Gets Show-Cause Order on Electric Switch-Locking

Implementing the recommendation of its report on a July 10 accident near Washington, Mo., the Interstate Commerce Commission has ordered the Missouri Pacific to show cause by November 15 why it should not be required to install electric switch-locking at hand-operated switches controlling movements between sidings and main tracks on its lines where trains are operated by signal indication only. The show-cause order was issued by Commissioner Patterson, under whose supervision the report of the accident was made.

The accident was a side collision between a passenger train and a freight train's locomotive which fouled the passenger train's track after it had been detached from its train and was proceeding on a siding to the rear of its own train to switch out a car with a hot journal box. The accident resulted in the death of one employee—the engineer of the passenger train.

It occurred 1.42 miles west of the station at Washington which is 38.27 miles west of Kirkwood on the M. P.'s St. Louis-Kansas City route—a double-track line over which trains moving with the current of traffic are operated by signal indications. The siding, 6,601 ft. in length, lies between the two main tracks and has lead tracks to both of them at each end. The freight train, eastbound No. 90, stopped between the siding switches on the eastward main track where its locomotive was detached. The engine then entered the siding, moved westward to the west siding-switch and then onto the westward lead track, the conductor having erroneously set the switch for that movement instead of for the intended movement over the other lead to the eastward main track where the hot-box car was to be switched out.

The engine crew realized that the switch had been improperly lined when the locomotive entered the westward lead track; and the engineer immediately reversed the movement in an unsuccessful attempt to move the engine into clear. The tender was struck by the passenger train, westbound No. 9, which was moving at an estimated speed of 35 m.p.h. The collision occurred at 1:20 a.m. on July 10 and the weather was clear. No. 9's engine and the first five of its 16 all-steel passenger cars were derailed, the engine and first four cars being "badly damaged" while the tender of the freight locomotive was "slightly damaged."

Automatic signal 517-R, governing westbound movements on the westward main track, is located 1.42 miles east of the point of the accident. It is of the color-light type, and its controlling circuits are so arranged that when any portion of the fouling section of the siding's westward lead track is occupied the signal displays stop. However, the passenger train passed this signal before the freight locomotive entered the lead track, and thus got a proceed signal. It stopped at the Washington station at 1:04 a.m. and departed from there at 1:15 a.m. with its headlight "lighted brightly" and its enginemen "maintaining a lookout ahead." The collision occurred five minutes later.

The fireman said he first saw the freight locomotive moving onto the lead when his engine was about 400 feet east of the west siding-switch; and he immediately called a warning to the engineer, then jumped from the engine. He did not observe what action was taken by the engineer, who was killed; and other members of the train crew said they did not know of anything being wrong until the collision occurred.

The switch-stand of the west-siding switch, which the freight conductor operated erroneously, is located between the south rail of the westward main track and the north rail of the siding and is of the hand-operated, two-position, ground-throw type. It is not provided with a target, a switch lamp or a lock. When the accident occurred the enginemen and flagmen of No. 90 were on the engine. The conductor said that when he lined the switch he thought he operated it from position for movement from the siding to the westward lead track to position for movement from the siding to the eastward lead track. Without observing the position of the switch points, he proceeded immediately to the eastward lead-track switch and lined that for movement from the lead track to the eastward main track; and, after an interval of about three minutes, he gave hand signals for his engine to move.

The enginemen and flagmen said they did not observe the position of this switch, and they did not realize it was improperly lined until the engine entered the westward lead track. Then came the engineer's unsuccessful effort to get his locomotive into clear. In leading up to its recommendation calling for the installation of electric switch-locking, the commission's report had this to say:

"During the 30-day period preceding the day of the accident, the average daily movement on this district wac 29.53 trains. Maximum authorized speeds in this territory are 90 m.p.h. for streamlined passenger trains, 75 m.p.h. for conventional passenger trains and 55 m.p.h. for freight trains. Since there was no target or switch lamp provided at the west siding-switch, it was necessary to observe the position of the switch points to determine the alinement of the switch. Other than the conductor of the freight train, no member of the crew could see the position of the switch points, because it was dark and the headlight was shining in the opposite direction. No means had been provided at the west siding-switch for preventing the fouling of either main track immediately in front of an approaching train. In view of the nature and volume of traffic on this line, all available facilities for adequate protection should be provided."

Shortage of Materials Closes Pullman-Standard Plant

Lack of sufficient materials with which to construct new freight cars caused a virtual close-down of the Michigan City (Ind.) plant of the Pullman-Standard Car Manufacturing Company, effective September 3, resulting in temporary idleness for approximately 600 of the factory's 1,100 employees. The plant will remain closed until September 16. The shut-down, the third in less than five months, has cut production to less than one-third of the plant's 54-cars-a-day capacity, and comes at a time when the company's back-log of orders totals 4,600 cars.

Air Mail Decreases

Civil Aeronautics Board figures show that less domestic air mail is being flown in the United States now that the war is over and the soldiers have returned to their homes. The mail ton-miles flown by 20 domestic airlines for the first four months of 1946 decreased 40.69 per cent compared to the first four months in 1945. Other phases of air traffic show increases, with express ton-miles up 5.12 per cent; revenue miles, 53.21 per cent; and revenue passenger-miles 74.05 per cent over the corresponding four-month period in 1945.

Labor Day Travel Heavy On Midwestern Roads

Heavy Labor Day travel was reported by most roads serving Chicago for the period beginning August 30 and ending the morning of September 3. In general, passenger traffic volume over the holidays appears to have been slightly under that of the 1945 week-end, which included a substantial amount of military and furlough travel and travel to military establishments by friends and relatives of men in service. Unseasonably cool weather reduced the volume of traffic to North Woods points in Wisconsin, Minnesota and Michigan substantially, but long-haul travel and passenger traffic to points not usually associated with summer resorts was exceptionally heavy, resulting in a somewhat unusual distribution of the traffic.

A survey of the results as reported by officers of individual railways follows:

Alton—Exceptionally heavy traffic between Chicago and St. Louis and locally north of Bloomington, Ill. The pick-up in business began on August 30, when six trains from Chicago to St. Louis handled 2,938 passengers. On the 31st these same trains handled 3,042 passengers. Traffic on

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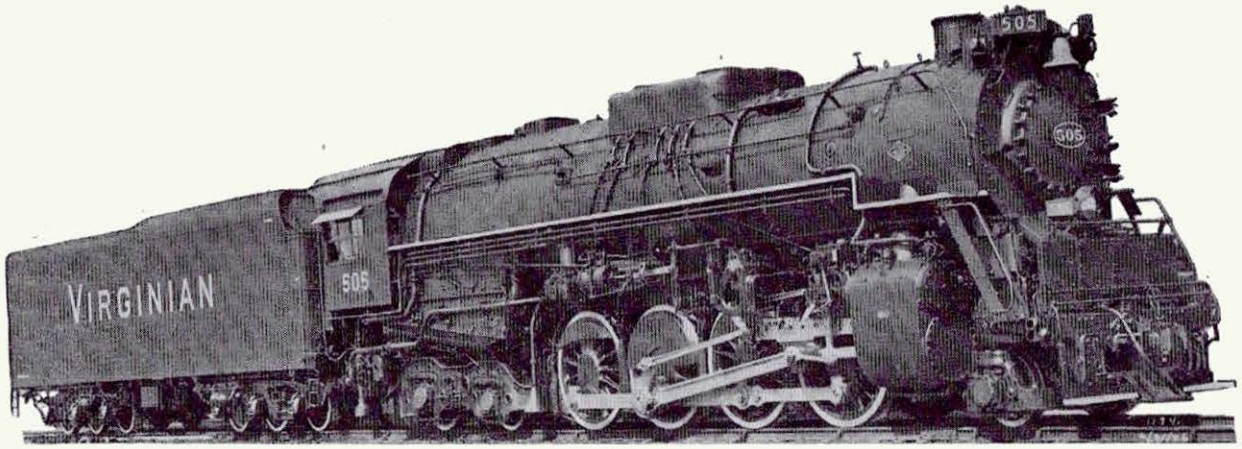
TONNAGE



IS AS VITAL AS SPEED...

The ability to haul freight at high speeds is not enough. Coupled with the need for speed is the problem of moving a large volume of traffic. Progressive railroads, such as The Virginian, have realized this fundamental fact and have kept abreast of conditions by ordering modern locomotives, such as the Lima 2-8-4, illustrated above, which permits the hauling of *heavy* loads at sustained high speeds.

LIMA LOCOMOTIVE WORKS — LIMA LOCOMOTIVE WORKS INCORPORATED — INCORPORATED, LIMA OHIO

Sunday, September 1, was light, but on the 2nd four trains into Chicago handled 2,663 passengers. The traffic was described as about the same as in 1945.

Atchison, Topeka & Santa Fe—This road reported its Labor Day traffic as about 80 per cent of the total for 1945. It operated extra cars on all trains, and, on Labor Day, operated its streamlined "Chicagoan" in two sections from Kansas City, Mo., to Chicago.

Baltimore & Ohio—Labor Day non-military passenger traffic in the Chicago area, was reported 3 per cent above last year's traffic. Although there was a substantial volume of travel it was possible to provide sufficient extra equipment to seat all passengers.

Chicago & Eastern Illinois—This road's holiday traffic, while extremely heavy, was about 15 per cent below that of 1945, due to the absence of military, furlough and associated travel. Extra cars were operated on many trains but it was necessary to handle some standing passengers.

Chicago & North Western—The volume was extremely heavy, the heaviest holiday period of 1946 and equal to any previous Labor Day movement. Although the cool weather reduced the volume of North Woods travel somewhat, extra sections out of both Chicago and Milwaukee, Wis., were necessary on many trains Friday night and into Chicago, on Monday, over a dozen such extra sections being required.

Chicago, Burlington & Quincy—Its Labor Day week-end passenger traffic was slightly less than in 1945, but far heavier than prior to the war. All available equipment was in service and all passengers desiring transportation were handled, although not all found seats.

Chicago, Indianapolis & Louisville—The Monon's holiday traffic was reported "much heavier than last year," due in part to the greatly increased train service that was available this year. All of the road's passenger equipment was in service, but it was necessary to handle many standing passengers.

Chicago, Milwaukee, St. Paul & Pacific—Passenger traffic was described as extremely heavy, with all equipment in service and some standees. The "North Woods Hiawatha" and the "Chippewa," normally consolidated from Chicago to Milwaukee, were operated as separate trains beginning August 30.

Chicago, Rock Island & Pacific—This line utilized all available equipment in handling what was described as the heaviest Labor Day movement in the memory of passenger traffic officers.

Erie—This road estimated that its passenger traffic in the Chicago area was about the same as in 1945, in spite of the absence of military and furlough travel. Extra coaches in service were sufficient to provide seats for all passengers.

Grand Trunk Western—Labor Day passenger traffic was about one per cent above that of 1945, and was described as heavy. Extra equipment was placed in service in all trains, but even so, there were some standing passengers handled.

Illinois Central—The I. C. estimated its passenger traffic over the Labor Day holidays as about 10 per cent over that of 1945. The road had 163 more coaches available for general service in 1946 than in 1945, because of the end of heavy military travel, and consequently, was able to provide seats for virtually all travelers.

New York Central—The New York Central estimated that its holiday traffic in and out of Chicago was 10 to 15 per cent above 1945. Extra sections were run on the "Pacemaker" to New York; the "James Whitcomb Riley" to Cincinnati, Ohio; and the "Twilight Limited" and the "Mercury" to Detroit, Mich. Sufficient extra equipment was provided to seat all passengers handled out of Chicago, but there were some standees on trains operating out of Detroit.

Pennsylvania—This road reported that its traffic was somewhat under that of 1945 and under the July 4 holiday this year. Extra cars were provided on all regular trains, but no extra sections were operated in the Chicago area.

Pere Marquette—The cool weather reduced northern Michigan travel from Chicago substantially as compared with 1945, although resort travel for the entire summer had been running considerably ahead of last year. The traffic was said to compare favorably with pre-war Labor Day peaks and to have been perhaps, "slightly higher." Between Detroit and Grand Rapids, the "Pere Marquettes," new streamliners, made four trips each way on Friday, Saturday and Monday, in place of the three normally operated.

Wabash—Labor Day traffic was described as heavy with extra cars on all regular trains.

Pullman-Standard Begins Work on Sleeping Cars

The first railroad sleeping cars to be built since the war by the Pullman-Standard Car Manufacturing Company are now on its assembly lines in Chicago. The cars are part of a lot of 25 sleepers for the Empire Builder" trains, to be placed in service late this year between Chicago, St. Paul, Minn., and Minneapolis, and the Pacific Northwest. Four of these trains are being purchased by the Great Northern and one by the Burlington. The new equipment includes 20 sleeping cars and five combination sleeping and buffet-lounge-observation cars.

Seven Railroads Among "Successful" Advertisers

Case histories of 78 of last year's outstandingly successful newspaper advertising campaigns have been detailed in the 1946 edition of "The Blue Book," which was published early in August by the Bureau of Advertising, American Newspaper Publishers Association. The 170-page volume gives details regarding each of the 78 campaigns with reproductions of the advertisements themselves. The chief consideration in picking the campaigns contained in the publication was that they "should have achieved results of some tangible nature."

Representative of the transportation field are campaigns of seven railroads. The Baltimore & Ohio had as its objective acquainting people living along the railroad's route with "behind the scenes" factors pertaining to its operation; the Chesapeake & Ohio, with the Nickel Plate, scheduled a series to dramatize and arouse public support for through coast-to-coast Pullman service; the Milwaukee undertook to guard against a post-war falling off of traffic on the "Hiawathas" and "Olympian" and to sound out the vacation desires of Americans; the New York Central keyed its campaign to creating a public understanding of railroad problems during the redeployment period; and the Seaboard Air Line slanted a series of advertisements to continue and further develop the neighbor-relationships between the company and the people of the six southern states it serves.

Export Freight Embargoed

Due to the threatened strike of maritime workers and to prevent congestion, the Car Service Division of the Association of American Railroads on September 5 placed an immediate embargo on all carload and less-than-carload freight consigned or reconsigned to any port area in the United States or billed or intended for export, coastwise on inter-coastal movement by water including freight intended for storage within such port area. The embargo, announced by W. C. Kendall, chairman of the Car Service Division, supersedes all other embargoes applicable to export, coastwise and inter-coastal freight.

Mr. Kendall said that the action, Car Service Division Embargo No. 495, excepts the following:

1. Grain, soy beans, flaxseed and malt in bulk.
2. Petroleum and petroleum products in tank cars to be unloaded before overseas movement.
3. Coal and coke in bulk when moving to ports, Hampton Roads, Va., and north.
4. Freight consigned to the United States Army, Navy, Marine Corps, and Coast Guard.
5. Freight for storage when consigned to public warehouses or in care of terminal carriers for carrier stroage provided prior arrangements have been made for such storage.
6. Freight covered by numbered permits issued by district managers of the Car Service Division of the A.A.R.

Chicago Car Foremen's Annual Meeting

The annual meeting of the Car Foremen's Association of Chicago, generally held at the LaSalle Hotel, Chicago, is scheduled for Monday evening, October 14, at the Congress Hotel. The program will include the usual presentation of committee reports and election of new officers, followed by an entertainment program for members and guests. Arrangements for subsequent meetings on the second Monday of each month have not been completed because of delay in repairing damage caused by fire at the Hotel LaSalle earlier this year and the difficulty the association finds in getting quarters elsewhere.

Carloading Firms Announce Merger

The merger of the General Carloading Company with the Wells Fargo Carloading Company became effective on September 1. The purchase of General Carloading by the latter was approved in October, 1945, by the Interstate Commerce Commission, which, in August of this year, approved the merger. "General Carloading operations have been confined to the territory east of the Mississippi river," Elmer Jones, president of Wells Fargo & Co., said,

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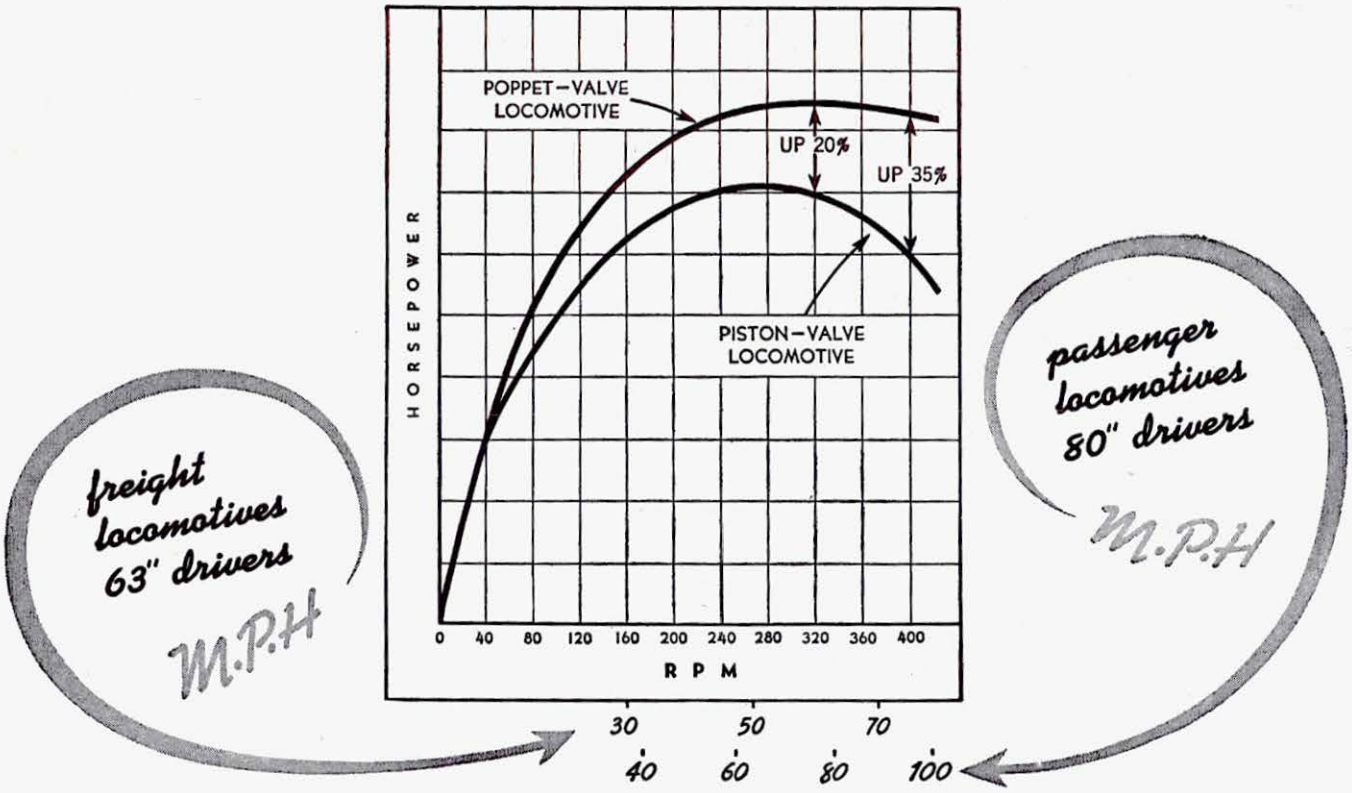


GREATER POWER for both freight and passenger locomotives

The outstanding increase in power, available by application of the Franklin System of Steam Distribution, is a function of revolutions per minute, not type of locomotive nor class of service. The increase can be as much or more for a freight locomotive with 63-inch drivers at 50 mph as with a passenger locomotive with 80-inch drivers at 63.5 mph.

The additional power is entirely the result of higher efficiency in converting steam into horsepower — through use of poppet valves and larger steam passages. It is produced without increased steam or fuel consumption.

Application of the Franklin System of Steam Distribution to existing or new locomotives is practical. The increased horsepower shown above is typical, as demonstrated by service records of presently equipped locomotives; however, we would be glad to prepare a comparative study on your own motive power.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

"while the Wells Fargo Carloading Company has specialized in handling traffic from points on the Atlantic coast to points on the Pacific coast, as well as Mexico and Cuba. The merger of these two companies will provide a coordinated service which will enable us to extend the operations and increase the volume of tonnage handled."

Club Meeting

The Northwest Locomotive Association will meet September 16, at 8 p. m. at Woodruff Hall, St. Paul, Minn. Both a paper and slides showing the Magnaflux method of inspection will be presented.

A continuation of the General News Department and a list of current publications will be found on page 427.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

ALLIED RAILWAY SUPPLY ASSOCIATION. — J. F. Gettrust, P. O. Box 5522, Chicago 80, Ill.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS. — E. P. Soebbing, 1450 Railway Exchange Bldg., St. Louis 1, Mo.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York 6, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill.

AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, 1103 Cleveland St., Evanston, Ill.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 17-19, 1946, Hotel Stevens, Chicago, Ill.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York 6, N. Y.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION. —W. J. Walsh, B. & O. R. R., Baltimore 1, Md.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.— Works in cooperation with the Association of American Railroads, Engineering Division.— W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 18-20, 1947, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—Virginia Tanner, Baltimore & Ohio Magazine, Room 1202, B. & O. Bldg., Baltimore 1, Md.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.— J. P. Nye, Tower Bldg., Washington 5, D. C. Annual meeting, October 2-3, 1946, Morrison Hotel, Chicago, Ill.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS. —C. E. Davies, 29 W. 39th St., New York 18, N. Y.
Railroad Division.—E. L. Woodward, Railway Mechanical Engineer, 105 W. Adams St., Chicago 3, Ill.

AMERICAN TRANSIT ASSOCIATION.—A. W. Baker, 292 Madison Ave., New York 17, N. Y. Annual business meeting, September 16-18, 1946, Palmer House, Chicago, Ill.

AMERICAN WOOD-PRESERVERS' ASSOCIATION. — H. L. Dawson, 1427 Eye St., N. W., Washington 5, D. C. Annual meeting, April 22-24, 1947, Multnomah Hotel, Portland, Ore.

ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.— R. A. Ellison, Cincinnati Chamber of Commerce, 1203 C. of C. Bldg., Cincinnati 2, O. Annual meeting, September 30-October 2, 1946, Neil House, Columbus, O.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—H. S. Whited, 5th & T Sts., N. E., Washington 2, D. C. Annual meeting October 8-10, 1946, Parker House, Boston, Mass.

ASSOCIATION OF AMERICAN RAILROADS. — H. J. Forster, Transportation Bldg., Washington 6, D. C.
Operations and Maintenance Department.— Clark Hungerford, Vice-President, Transportation Bldg., Washington 6, D. C.
Operating-Transportation Division. — L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.
Operating Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.
Communications Section.—W. A. Fairbanks, 30 Vesey St., New York 7, N. Y. Annual meeting November 19-21, 1946, Hotel Statler, Detroit, Mich.
Fire Protection and Insurance Section. —W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York 17, N. Y.
Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill.
Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y. Annual meeting, October 28, 1946, Hotel Sherman, Chicago, Ill.
Protective Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Safety Section. — J. C. Caviston, 30 Vesey St., New York 7, N. Y.
Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 18-20, 1947, Palmer House, Chicago, Ill.
Construction and Maintenance Section. —W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 18-20, 1947, Palmer House, Chicago, Ill.
Electrical Section—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, October 22, 1946, Hotel Sherman, Chicago, Ill.
Signal Section.—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y. Annual meeting, October 14-16, 1946, New Ocean House, Swampscott, Mass.
Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June, 1947, Convention Hall, Atlantic City, N. J.
Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, October 23-25, 1946, Hotel Sherman, Chicago, Ill.
Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C. Annual meeting, June, 1947, Convention Hall, Atlantic City, N. J.
Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago 5, Ill.
Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington 6, D. C.
Car Service Division.—E. W. Coughlin, (Assistant to Chairman), Transportation Bldg., Washington 6, D. C.
Finance, Accountnig, Taxation and Valuation Department—E. H. Bunnell, Vice-President, Transportation Bldg., Washington 6, D. C.
Accounting Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Treasury Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.
Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington 6, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Alton R. R., 340 W. Harrison St., Chicago 7, Ill.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—E. C. Gunther, Duff-Norton Mfg. Co., 122 S. Michigan Ave., Chicago 3, Ill. Exhibit in conjunction with American Railway Bridge & Building Association Convention, September 16-19, 1946, Hotel Stevens, Chicago, Ill.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcil Ave., N. D. G., Montreal 28, Que. Regular meetings second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.— J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis 3, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—Ralph J. Feddor, 2803 N. Campbell Ave., Chicago 18, Ill. Regular meetings, second Monday of each month, except June, July and August. Annual meeting, October 14, 1946, Congress Hotel, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, 1840-42 Hotel Statler, McKinley Square, Buffalo 5, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS. —H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.

EASTERN CAR FOREMAN'S ASSOCIATION. — W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February (Annual Dinner), March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, North Little Rock, Ark.

MASTER BOILER MAKERS' ASSOCIATION. — A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington 25, D. C. Annual meeting, November 12-15, 1946, Hotel Biltmore, Los Angeles, Cal.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—W. B. Shepherd, Aluminum Company of America, Gulf Bldg., Pittsburgh 19, Pa. Annual meeting, October, 1946.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C. Annual meeting, November 21-22, 1946, Hotel Pennsylvania, New York, N. Y.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.— C. H. White, Room 1826, 208 S. La Salle St., Chicago 4, Ill. Meeting and exhibit, March 17-20, 1947, The Coliseum, Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston 11, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.

NEW YORK RAILROAD CLUB. — D. W. Pye, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

NORTHWEST CARMEN'S ASSOCIATION. — E. N. Myers, Minnesota Transfer Ry., 1434 Iowa Ave., St. Paul 4, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

PACIFIC RAILWAY CLUB. — William S. Wollner, P. O. Box 458, San Rafael, Cal. Regular meetings, second Thursday of each alternate month at Palace Hotel, San Francisco, Cal., and Hotel Biltmore, Los Angeles, Calif.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago 3, Illinois. Annual dinner, November 21, 1946, Waldorf-Astoria Hotel, New York, N. Y.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago 6, Ill. Exhibit in conjunction with meeting of the Electrical Section of the Mechanical Division of the A. A. R., October 23-26, 1946, Hotel Biltmore, Chicago, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago 4, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION. —J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Exhibit in conjunction with meetings of A. A. R. Mechanical Division and Purchases and Stores Divisions, June 23-28, 1947, Convention Hall, Atlantic City, N. J.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Communications Section, of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis 3, Mo.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 17-19, 1946, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.— A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS. —D. W. Brantley, C. of Ga., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago 5, Ill. Exhibit in connection with Roadmasters' and Maintenance of Way Association Convention, September 16-19, 1946, Hotel Stevens, Chicago, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.— Roy E. Collins, 225 Bidwell Ave., Westerleigh, Staten Island 2, N. Y. Annual meeting, October 12-13, 1946, Baltimore, Md.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

IT PAYS TO INSTALL . . .

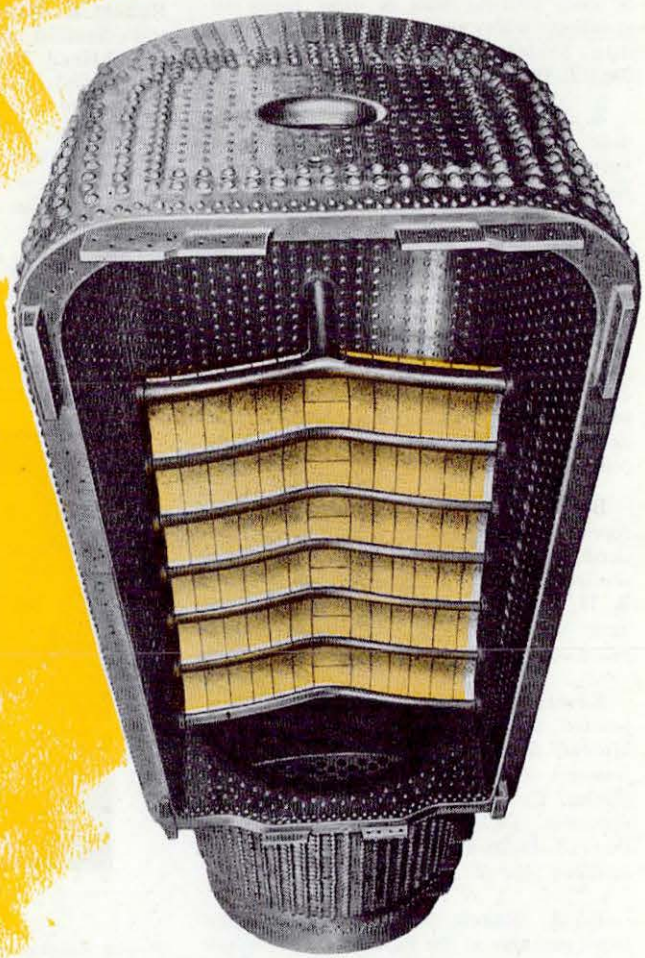
SECURITY CIRCULATORS

FOR ANY ONE OF THESE REASONS

1. Security Circulators furnish unexcelled support for the brick arch in the firebox.
2. Security Circulators reduce honeycombing and cinder cutting.
3. Security Circulators improve the circulation within the boiler.
4. Security Circulators aid in maintaining maximum boiler output.

Any one of these four reasons justifies the installation of Security Circulators—

altogether they mean a decided increase in Locomotive Availability.



AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

Supply Trade

American Car & Foundry Backlog

The American Car & Foundry Company has unfilled orders for $155,000,000 of railway equipment, compared with the backlog of $124,000,000 on May 1, the beginning of the present fiscal year, Charles J. Hardy, chairman, told stockholders at their annual meeting August 29. The unfilled orders are for 24,110 freight cars, 656 passenger cars, 2,447 tank cars, and 5,463 mine cars.

Mr. Hardy said operations have been hampered for some time by the inability to obtain materials, especially steel. The company is in a strong financial position, he said, with no bank or other loans outstanding, with working capital of more than $55,000,000, an earned surplus of $40,000,000, and virtually no fixed debt.

E. L. Jackson and **M. J. Anderson** have been appointed assistant sales managers for the Air Tool division of the **Aro Equipment Corporation,** Bryan, Ohio.

H. W. Dillon, service engineer for the **Paxton-Mitchell Company,** Omaha, Neb., has been promoted to manager of the North Eastern district, with headquarters as before at New York.

Frank Clough, an executive of the Fred Harvey Company and operating manager of its railway news service, retired on August 31 after 54 years of service with the company.

Bert E. Dewey, superintendent of car service for the **Pullman Company,** has retired after completing 57 years railroad service. **Peter Parke,** chief engineer, and **B. H. Vroman,** assistant to the vice-president, have retired with 55 years and 48 years of service, respectively.

Edward C. Logelin, Jr., has been appointed director of public relations for **United States Steel Corporation** subsidiaries, Chicago district, succeeding **Arthur C. Wilby,** whose election as vice-president of United States Steel Corporation of Delaware, was reported in the *Railway Age* of August 17.

E. A. Razek, formerly retail motor truck manager at the Richmond, Va., motor truck branch of the **International Harvester Company,** has been appointed assistant manager of the Atlanta, Ga., motor truck branch. **B. G. Jones** has been appointed assistant manager of the Louisville, Ky., motor truck branch.

Consolidation of the sales development and engineering service divisions of the **Allegheny Ludlum Steel Corporation** under the managership of **W. B. Pierce,** formerly manager of the sales development division, has been announced. The functions of the new department will be to coordinate and extend the company's cooperation with users and fabricators of stainless steel on their problems of applications and uses. Special attention will be given to the development of new markets for the introduction of new alloys.

The managements of the **Pantasote Company,** Passaic, N. J., and the **Textileather Corporation,** Toledo, Ohio, have announced the conclusion of negotiations to merge the companies into a new corporation to be known as **Pantasote Plastics, Inc.** The new corporation, like its predecessors, will produce artificial leathers, plastic-coated fabrics and vinyl resin film. **Hans Wyman,** president of Pantasote, will be president of Pantasote Plastics, and **J. D. Lippman,** president of Textileather, will be a vice-president of the new company.

The formation of **Fleishman, Hillard & Associates,** a new St. Louis, Mo., firm which will include as one of its specialties the study of public relations problems in mass transportation systems — aviation, urban street carriers and railroads — has been announced. It will be directed by **Robert E. Hillard,** former feature editor and columnist on the St. Louis Star-Times, and **Alfred Fleishman.** Their services will include over-all public relations research and planning; consultation on specific public relations problems; supervision of special events and conferences; liaison work with newspapers, magazines and radio; and the editing of industrial publications.

H. J. Harp has been appointed sales engineer of internal feed water treatment for the Philadelphia area for the **Permutit Company,** with headquarters at 34 South 17th street, Philadelphia, Pa. Mr. Harp is national treasurer of the Association of

H. J. Harp

Power Engineers and recently served as a mechanical engineer with the Army Air Force. He was formerly instructor in power plant engineering at the Williamson Trade School, chief engineer of the Delaware Jute Mills, and power chief at Charles P. Lennig, Philadelphia.

Arthur F. Becker has been elected vice-president in charge of service for the **American Arch Company,** New York. Mr. Becker was born in Cleveland, Ohio, and began his railroad career as an apprentice machinist in the Beech Grove shops of the Cleveland, Cincinnati, Chicago & St. Louis at Indianapolis, Ind. In 1913, he joined the Toledo & Ohio Central at Bucyrus, Ohio, and later was appointed general foreman of shops for the Michigan Central at Jackson, Mich. He joined the American Brake Shoe & Foundry Co. in 1917 as service engineer and was later appointed plant engineer in Chicago.

Mr. Becker joined American Arch as a service engineer in 1921 and subsequently was transferred to plant operations. In 1933, he was appointed assistant to the vice-president in charge of sales, with headquarters in Chicago, where he remained until his transfer last year to the New York office.

Don Cummins has been appointed quality manager of the **Cummins Engine Company** to serve as final authority on decisions affecting the quality of Cummins engines, it has been announced. Mr. Cummins has been with the company since

Don Cummins

1919, and played an important role in developing the high-speed Diesel introduced by Cummins in 1932. For the past five years he has been director of research, in charge of the company's experimental and test laboratory, working closely with H. L. Knudsen, vice-president in charge of engineering. Mr. Cummins planned the building in which the Cummins fuel and injection system is manufactured. Mr. Cummins will have complete charge of all inspection departments, including inspection of purchased materials, and will also be in charge of a program to interpret and teach the "user's point of view" to every member of the organization.

Kennametal, Inc., Latrobe, Pa., has announced the opening of a new Baltimore, Md., office for the selling and servicing of Kennametal tools, with **Alfred A. Anderson** in charge. The appointment of the **H & H Tool & Supply Co.,** 211 North Broadway, Wichita 2, Kan., as its agent in the Wichita area, also has been announced, along with the formation of a new Central district, which is a consolidation of the former Detroit, Mich., and Cleveland, Ohio, sales districts. **Bennett Burgoon,** district manager of the Detroit area, has been appointed district manager of the new Central district, supervising activities of the Toledo, Ohio, and Cleveland branch offices, from his district headquarters in Detroit. **Thomas O'Connell** has been appointed agent for the South Atlantic district, with headquarters in Asheville, N. C.

The **Sterling Engine Company,** Buffalo, N. Y., has received an order for approximately $1,500,000 worth of Sterling

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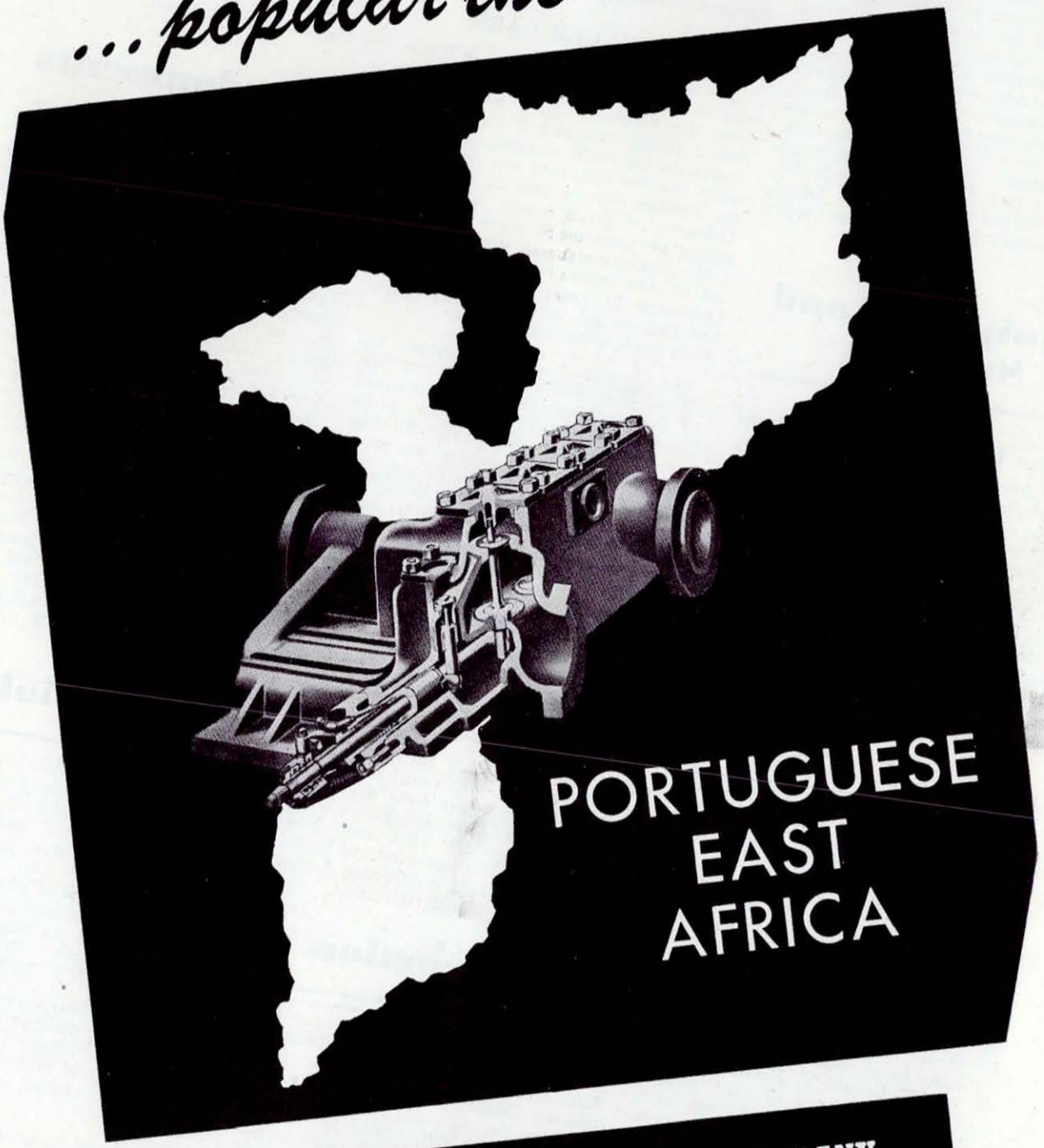
The *American* Multiple-valve Throttle

...popular the World Over



AMERICAN THROTTLE COMPANY
INCORPORATED
60 East 42nd Street, New York 17, N. Y.
122 S. Michigan Avenue, Chicago 3, Ill.

Viking Diesel engines and parts from the Whitcomb Locomotive Company, Rochelle, Ill. This is in addition to a previous order from Whitcomb for nearly $1,000,000 worth of Sterling Viking Diesels which are now in production at the Sterling plant. These engines will power a new series of streamlined Diesel-electric locomotives developed by Whitcomb for American and foreign railroads. A number of 80-ton locomotives with twin Sterling Viking Diesel power plants will be delivered soon to the Estrado de Ferro Sorocabana Railways of Brazil. Others of this same type are being consigned to railways in Colombia, Ecuador, Chile and Argentina. Two 50-ton Whitcomb locomotives, each powered by a single 660-hp. supercharged Sterling Viking Diesel, are now being built for the Braden Copper Company.

Equipment and Supplies

Mexico to Buy More Equipment

Mexico is reported to be negotiating for the purchase in the United States of 2,000 freight cars, in addition to the 1,500 steel box cars already under construction, and an unspecified number of steel passenger coaches, according to the "Foreign Commerce Weekly" of the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce. Orders have been placed also for 50,000 tons of 112-lb. rails.

LOCOMOTIVES

The CLINCHFIELD is inquiring for 4 to 8 locomotives of the 4-6-6-4 type.

The GULF, MOBILE & OHIO has ordered one 1,500-hp. Diesel-electric freight locomotive from the Ingalls Shipbuilding Corporation.

One hundred per cent Dieselization of the MISSOURI - KANSAS - TEXAS' Dallas, Texas, yards was realized last week with the placing in service of the last two of six 1,000-hp. switching engines ordered from the Baldwin Locomotive Works. This is the first terminal on the Katy in which Diesel switching power is used exclusively. "The new locomotives are working 'around the clock'," Donald V. Fraser, president, said. "They perform all yard services, such as making up trains, switching rolling stock, and servicing industries on our lines. "This is only the start of the Dieselization on the Katy," he continued. "Diesel engines for fast freight and passenger trains are now on order, and will be placed in road service just as soon as they are delivered by the manufacturers."

FREIGHT CARS

The CENTRAL OF PENNSYLVANIA and the LEHIGH & HUDSON RIVER are jointly inquiring for 28 70-ton covered hopper cars.

The MISSOURI ILLINOIS is inquiring for 100 70-ton 41-ft. 9-in. steel hopper cars, 15 70-ton 35-ft. 2¾-in. steel covered cement hopper cars and 35 70-ton 41-ft. 9-in. steel covered hopper cars.

The BALTIMORE & OHIO is inquiring for 2,000 steel hopper cars. This is in addition to orders for 2,000 50-ton hopper cars recently divided equally between the Bethlehem Steel Company and the Pullman-Standard Car Manufacturing Company.

PASSENGER CARS

The DELAWARE, LACKAWANNA & WESTERN has ordered 15 lightweight coaches from the American Car & Foundry Co. and 2 dining cars and 2 tavern-lounge cars from the Budd Company. (The inquiry for this equipment was reported in the *Railway Age* for July 20, page 108). Deliveries of the new cars are expected during the second and third quarters of 1947. The purchase of 3 sleeping cars for use in joint service with the New York, Chicago & St. Louis between New York and Chicago has been authorized by the road's board of managers.

The CHICAGO & NORTH WESTERN has ordered 46 streamline passenger cars from the Pullman-Standard Car Manufacturing Company, including 27 coaches, nine parlor cars, four baggage-mail cars, four tap-diner lounge cars, one cafe-coach and one dining car. These cars will be used to equip new "400" type streamlined trains to be operated between Chicago and Omaha, Neb.; Sioux City, Iowa, and Omaha (connecting with the Chicago-Omaha streamliner at Missouri Valley, Iowa); Chicago and Ashland, Wis.; and Chicago and Rochester, Minn., and Mankato. When these cars are put into service, the Chicago & North Western will have streamliners on all of its main lines radiating from Chicago.

SIGNALING

The NEW YORK, NEW HAVEN & HARTFORD has ordered five model-31 electropneumatic car retarders from the Union Switch & Signal Co. for installation in the westbound Cedar Hill yard, near New Haven, Conn. The equipment, to be installed by the road's construction forces, involves 624 rail feet of retardation.

Construction

BALTIMORE & OHIO. — This road has awarded to the Bates & Rogers Construction Corp., Chicago, and the Empire Construction Company, Baltimore, Md., a contract for the relocation of 19.2 miles of track from Zanesville, Ohio, to Newark. The project, it is estimated, will cost approximately $6,000,000 and the railroad will be reimbursed for the entire cost by the United States government.

The relocation of track, made necessary because part of the B. & O. main line will lie in the pool to be formed by the federal government's construction of the proposed Dillon dam and reservoir, is practically a replacement of the existing line as to length, curvature, gradients and general railroad facilities. The reconstruction, which is high above the bed of Licking river, involves heavy grading, several high bridges and a large number of boxes and culverts for drainage. Among the work required for the project will be 3,500,000 cubic yards of grading, 20,000 cubic yards of concrete, 1,500,000 lb. of reinforcing steel, 1,000,000 lb. of structural steel, 2,400 ft. of concrete pipe and 23 miles of track.

ST. LOUIS-SAN FRANCISCO.—This road has awarded a contract for construction of a freight house at Birmingham, Ala., to cost approximately $120,000.

Abandonments

DELAWARE & HUDSON.—Division 4 of the Interstate Commerce Commission has authorized this corporation and the Chateaugay & Lake Placid, which it controls by ownership of stock, to abandon operation of, and to abandon, respectively, a line from Lyon Mountain, N. Y., to Plumadore Junction, 13.66 miles, and a line from Saranac Lake, N. Y., to Lake Placid, 10.1 miles. At the same time, the commission authorized the New York Central to acquire and continue to operate the last-named line. The commission also authorized the D. & H. to abandon operation under trackage rights over a line of the N. Y. C. from Plumadore Junction to Saranac Lake, 27.36 miles. In approving these transactions, the commission imposed employee-protection conditions similar to those prescribed in the precedent-setting Burlington case, 257 I. C. C. 700. With respect to the abandonments, the report rejected contentions of the New York Public Service Commission that I. C. C. jurisdiction was limited to interstate and foreign commerce.

Financial

ALTON.—*Promissory Notes.*—Acting upon the request of the applicant, Division 4 of the Interstate Commerce Commission has modified its order of June 6, 1945, as reported in *Railway Age*, June 16, 1945, page 1082, reducing from $1,946,677 to $1,916,832 the amount of promissory notes to be issued by this road in evidence, but not in payment, of the unpaid portion of the cost of equipment to be acquired from the American Car & Foundry Company.

BOSTON & ALBANY.—*Reduced Dividend.*—This road has declared a dividend of $2 a capital share, payable on September 30 to stockholders of record on August 31. The previous payment was $2.50 a share on June 29.

CHICAGO, BURLINGTON & QUINCY.—*Promissory Notes.*—Acting upon the request of the applicant, Division 4 of the Interstate Commerce Commission has modified its order of October 22, 1945, as reported in *Railway Age*, November 3, 1945, page 733, reducing from $3,883,440 to $3,807,468 the amount of promissory notes to be issued by this road in evidence, but not in payment, of the unpaid portion

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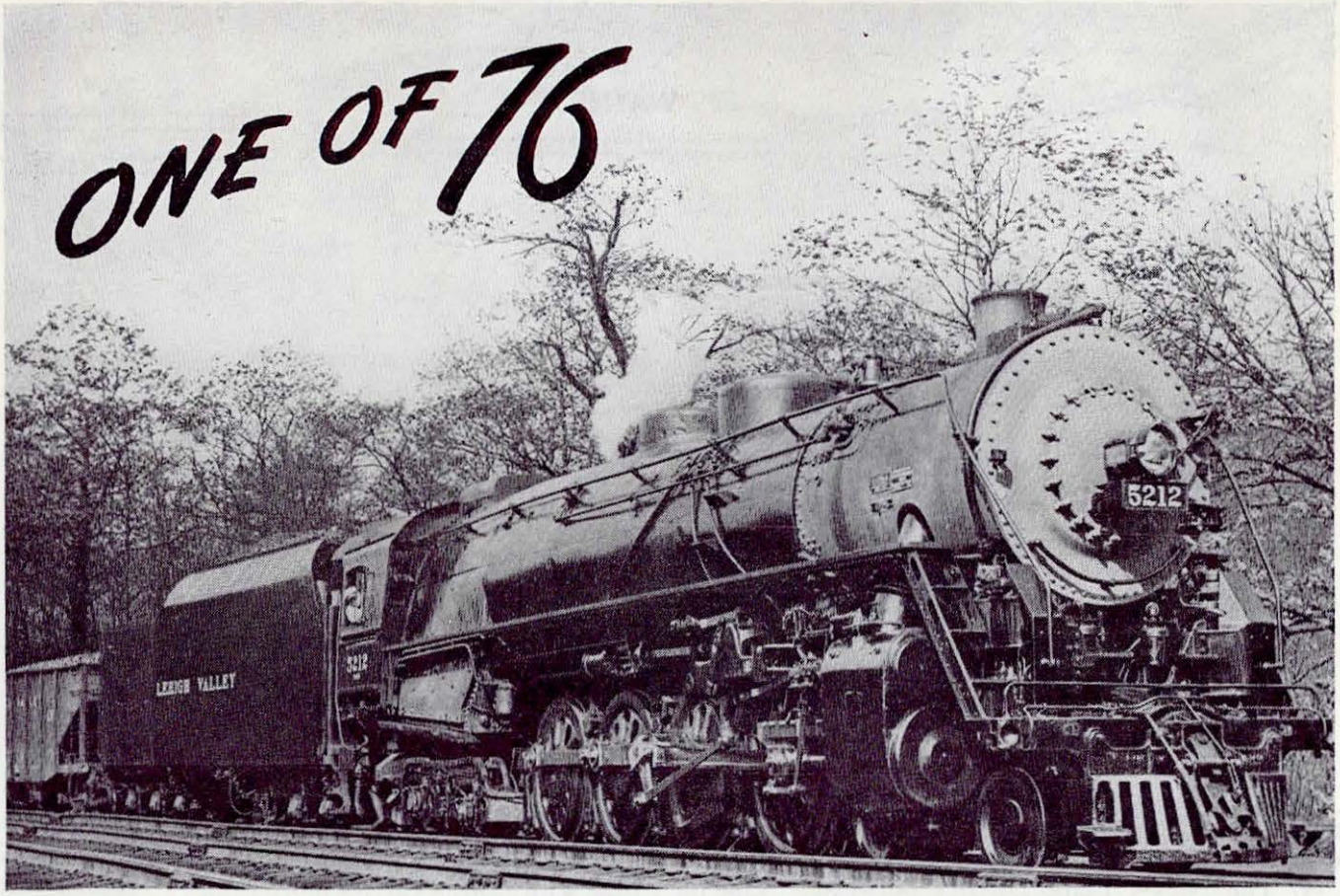


Lehigh Valley

LONG-TIME HSGI USER

There is great significance in the fact that most of America's Class I railroads—seventy-six of them—have used wear-resisting Hunt-Spiller Gun Iron for valve and cylinder bushings, packing, and other vital locomotive parts for more than a generation. Prominent among these roads is the Lehigh Valley, now entering its second hundred years of service as a mighty link between Lakes and Sea.

Continued satisfaction like this, so widely duplicated, can mean but one thing: HSGI maintains steam locomotive efficiency and availability better and longer than any other material.

HUNT SPILLER GUN IRON
HSGI
AIR FURNACE PROCESS

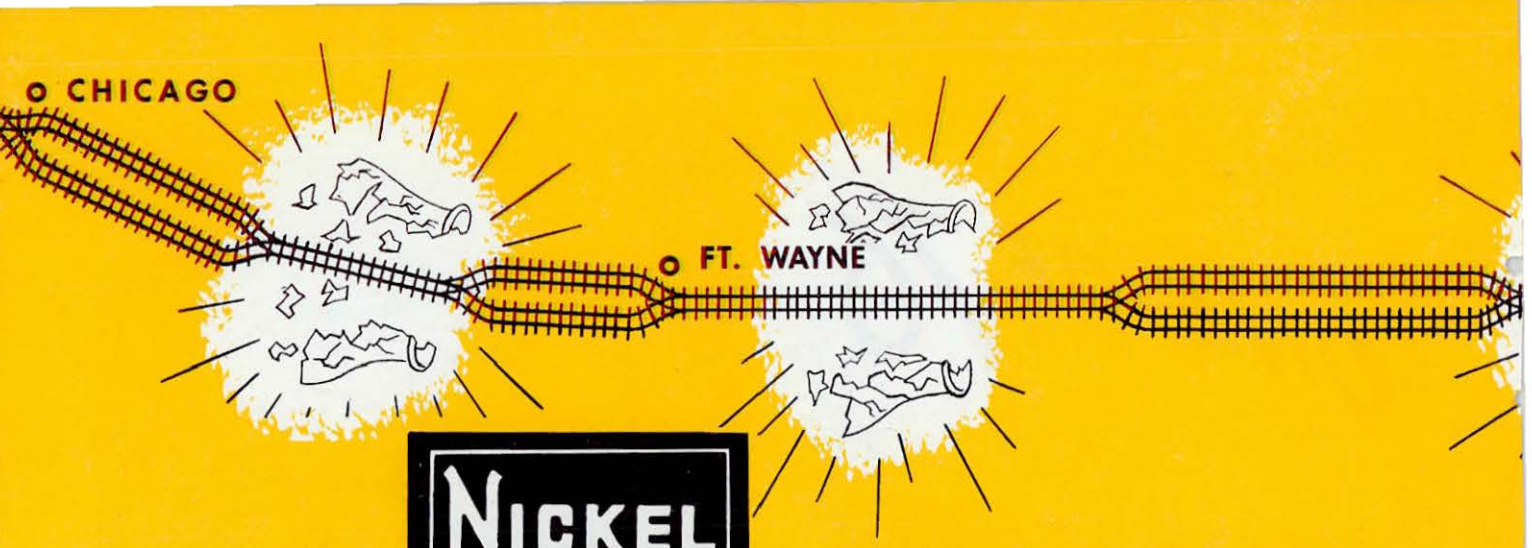
HUNT-SPILLER MFG. CORPORATION

N. C. RAYMOND, *President* — E. J. FULLER, *Vice-Pres. & Gen. Mgr.*

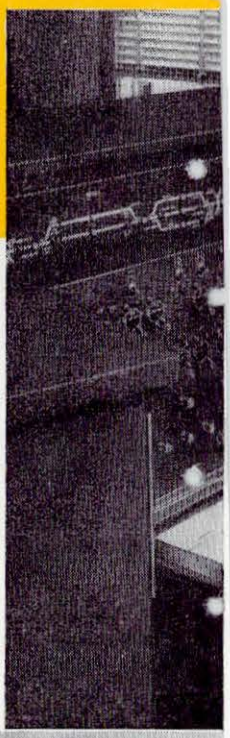
383 Dorchester Ave. ★ South Boston 27, Mass.

Canadian Representative: Joseph Robb & Co., Ltd., 5575 Cote St. Paul Rd., Montreal, P. Q.
Export Agents:
International Rwy. Supply Co., 30 Church Street, New York 7, N. Y.

Cylinder Bushings	Crosshead Shoes	Dunbar Sectional Type Packing
Cylinder Packing Rings	Hub Liners	Duplex Sectional Type Packing
Pistons or Piston Bull Rings	Shoes and Wedges	for Cylinders and Valves
Valve Bushings	Floating Rod Bushings	(Duplex Springs for Above
Valve Packing Rings	Light Weight Valves	Sectional Packing)
Valve Bull Rings	Cylinder Liners and Pistons	Cylinder Snap Rings
	for Diesel Service	Valve Rings, All Shapes



THE NICKEL PLATE ROAD SMASHES with "UNION" C.T.C.

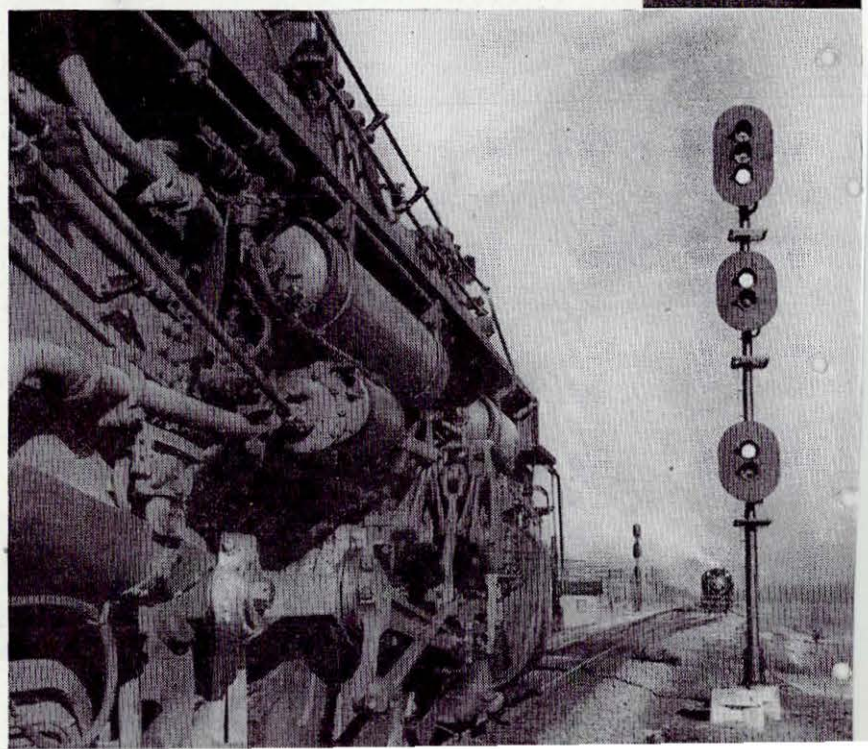


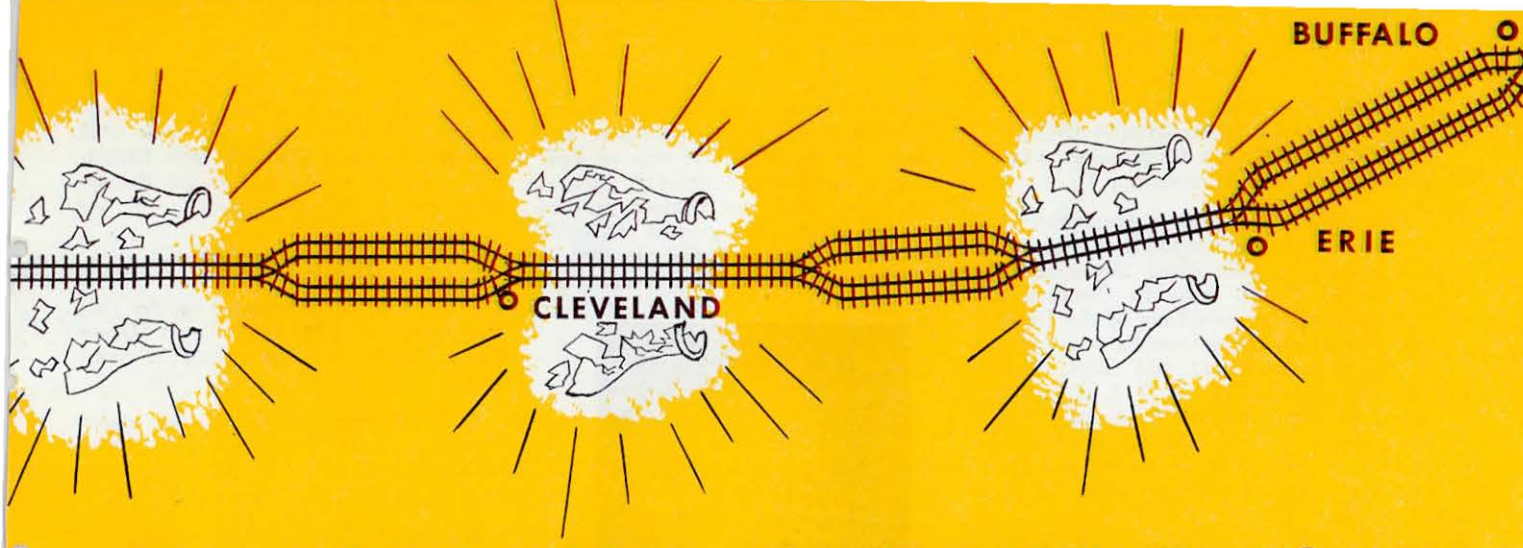
The New York, Chicago and St. Louis Railroad is a high-speed freight and passenger carrier. The Nickel Plate District between Buffalo and Chicago covers 523 miles, of which 307 are divided into 5 single-track sections varying in length from 21.6 miles to 121 miles. The balance of the district is double track except for 4 miles in 3 terminal areas.

Installation of "Union" Centralized Traffic Control on the Nickel Plate began late in 1941 when traffic was increasing rapidly. The amount of line which could be equipped each year was limited by man power and material shortages. The railroad therefore undertook its C.T.C. program on the basis of progressively equipping these sections of single track in the order of their importance. The bottlenecks would be smashed one at a time! The program now stands—126 miles completed; 94 authorized for 1946; and the economic and engineering studies have been completed for the remaining 87 miles.

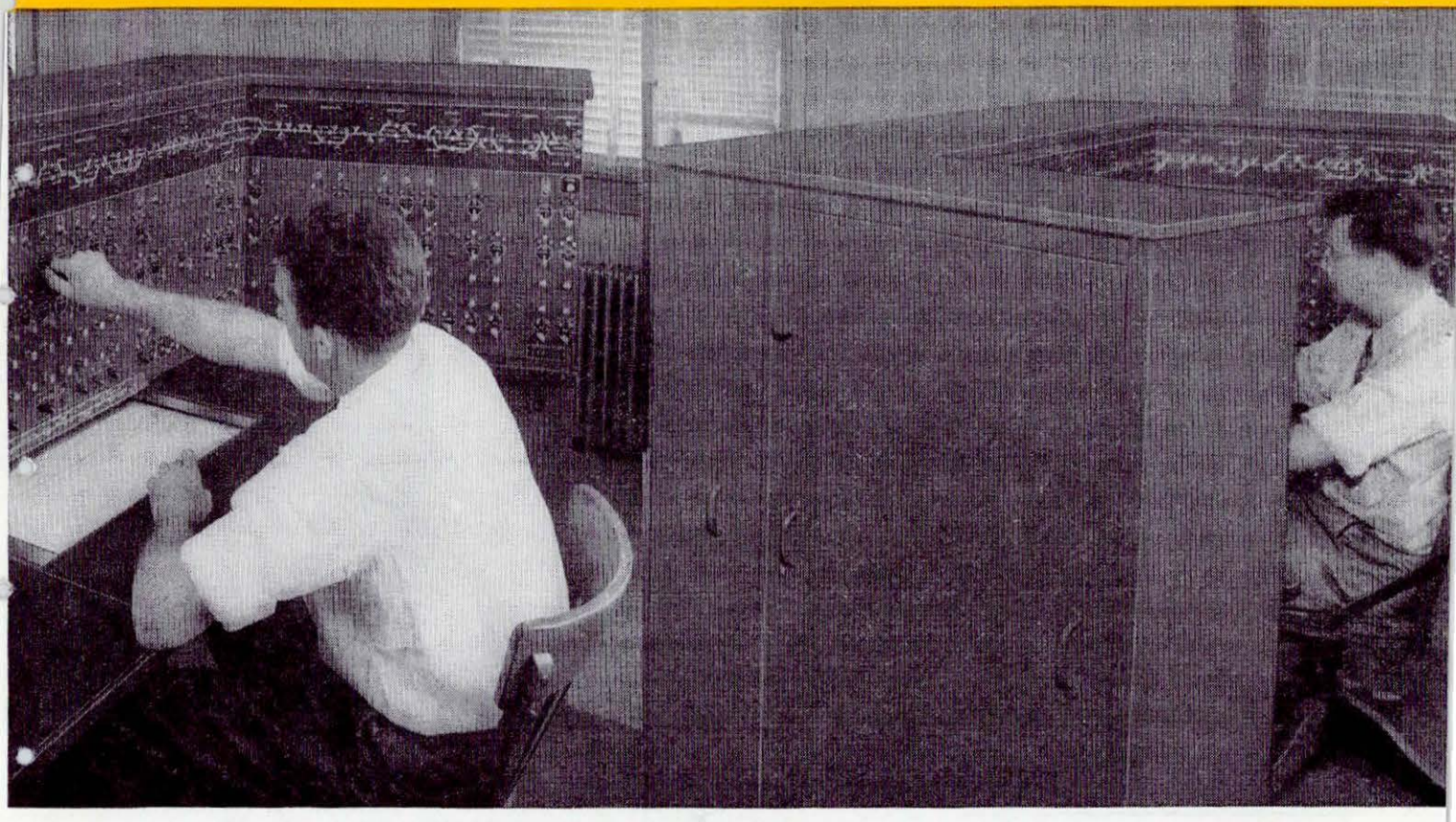
These installations of "Union" C.T.C. have cost much less than a second main track—had it been possible to install such track. As each section was put into service, it immediately began to show operating economies and efficiencies. They have already helped increase capacity of the Nickel Plate to the extent that it is today one of the country's most efficient freight handling railroads per mile of main track. Fully signaled, high-speed sidings make non-stop meets entirely possible—a valuable economic advantage on a road which often carries more than sixty trains daily.

The Nickel Plate C.T.C. program has shown how a program of relatively short C.T.C. installations can relieve congested conditions immediately while working toward the overall objective of an entire system. This program is now being extended to the L. E. & W. District, 62 miles of which have been authorized for 1946.





SINGLE-TRACK BOTTLENECKS



"Union" engineers will gladly discuss with you the similar possibilities which Centralized Traffic Control may hold for your railroad. Write, or call, your nearest "Union" district office.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

"UNION" C. T. C. *SAVES YOU MORE THAN IT COSTS*

of the purchase price of equipment to be acquired from the Electro-Motive Division of the General Motors Corporation under a conditional sales agreement.

NEW YORK CENTRAL. — *Acquisition.* — Division 4 of the Interstate Commerce Commission has authorized this road to acquire for $75,000 from the Chateaugay & Lake Placid, a subsidiary of the Delaware & Hudson, a line from Saranac Lake, N. Y., to Lake Placid, 10.1 miles. The line was operated by the D. & H. under lease. In approving this transaction, the commission imposed employee-protection conditions similar to those prescribed in the precedent-setting Burlington case, 257 I. C. C. 700.

UNION.—*Refunding.*—Division 4 of the Interstate Commerce Commission has authorized this road to issue $7,900,000 of 50-year Series A first and refunding mortgage 3 per cent bonds, the proceeds of which will be applied toward the retirement of $2,000,000 of first mortgage 5 per cent gold bonds and $5,900,000 of 6 per cent gold debentures, both due September 1. The bonds, which will mature August 1, 1996, are subject to earlier redemption at the option of the applicant at various prices. They were sold at par to the United States Steel Corporation, which controls the Union through stock ownership.

Average Prices Stocks and Bonds

	Sept. 3	Last week	Last year
Average price of 20 representative railway stocks..	52.36	57.96	54.15
Average price of 20 representative railway bonds..	94.66	95.06	96.51

Dividends Declared

Beech Creek.—50c, payable October 1 to holders of record September 9.

Boston & Albany.—$2.00, payable September 30 to holders of record August 31.

Dayton & Michigan.—Common, semi-annually, 87½c, and 8% preferred, quarterly, $1.00; both payable October 1 to holders of record September 16.

Pittsburgh, Fort Wayne & Chicago.—Quarterly, $1.75, payable October 1 to holders of record September 10; and preferred, quarterly, $1.75, payable October 8 to holders of record September 10.

Reading.—2nd preferred quarterly, 50c, payable October 10 to holders of record September 19.

Railway Officers

EXECUTIVE

Oscar Townsend, vice-president in charge of traffic of the Chicago Great Western, with headquarters at Chicago, has retired after 36 years' service with that road.

J. E. Wolfe, staff officer to the operating vice-president of the Chicago, Burlington & Quincy, with headquarters at Chicago, has been promoted to assistant to the vice-president-labor-relations, with the same headquarters, succeeding **H. J. Hoglund,** whose furlough to become a carrier member of the National Railroad Adjustment Board was reported in the *Railway Age* of August 24.

Arthur Burr Nichols, whose retirement on August 28 as vice-president and clerk of the corporation of the Boston & Maine, with headquarters at Boston, Mass., was announced in the August 31 issue of *Railway Age,* was born on August 28, 1876, at Bernardston, Mass., and entered railroad service in 1894 in the general manager's office of the Boston & Maine. In 1895 he was transferred to the office of the president and subsequently advanced through various positions to become clerk of the corporation and of the directors in 1912. He was appointed assistant to the president in 1914, then assistant to the temporary receiver in 1916, and from 1918 to 1920 served as treasurer under federal control. Mr. Nichols became vice-president of the B. & M. in 1929, and also a director in 1938. He holds directorships and executive offices in a number of other railroads and transportation companies in New England.

Arthur B. Nichols

William J. Burns, assistant clerk of the corporation of the Boston & Maine, has been named to succeed Mr. Nichols in the post of clerk of the corporation.

FINANCIAL, LEGAL AND ACCOUNTING

J. A. Wright, assistant solicitor of the Canadian Pacific, with headquarters at Vancouver, B. C., has been promoted to solicitor, succeeding **J. E. McMullen,** who has retired after 48 years service.

H. A. Young, assistant auditor of freight and passenger accounts of the Chicago Great Western, with headquarters at Chicago, has been promoted to auditor of freight and passenger accounts, with the same headquarters, succeeding **James F. Wade,** who has retired after 63 years of railroad service.

O. J. Wullstein, freight claim agent of the Union Pacific, with headquarters at Salt Lake City, Utah, has been promoted to general freight claim agent, with headquarters at Omaha, Neb., succeeding **A. R. McNitt,** who has retired. Mr. McNitt was born at Nora Springs, Iowa, on October 24, 1873, and entered the service of the Union Pacific on August 5, 1890, in the freight accounting department at Omaha. He worked in the road's offices at Denver, Colo., and Salt Lake City before becoming freight claim agent at Omaha in 1918. In 1930, he was promoted to general freight claim agent there. He has been a member of the freight claim division of the Association of American Railroads since 1907, serving as general chairman from 1930 to 1932, and has served as loss and damage arbitrator and field arbitrator.

OPERATING

P. K. Pierce, trainmaster on the Pere Marquette, with headquarters at Grand Rapids, Mich., has retired after 47 years service.

B. S. Bauman, assistant division superintendent of the Southern Pacific, with headquarters at San Luis Obispo, Cal., retired recently after 44 years service.

Morris F. Cary, assistant superintendent on the Pere Marquette, with headquarters at Detroit, Mich., has been promoted to superintendent of the Fort Street Union Depot at Detroit.

John T. Moon, whose promotion to general manager, Western lines, of the Southern, with headquarters at Cincinnati, Ohio, was reported in the *Railway Age* of July 27, was born at Lynchburg, Va., on February 12, 1892. He was graduated from Trinity college (now Duke university) at Durham, N. C., in 1914 and began his railroad career with the Southern in that year as a student roadway apprentice at Birmingham, Ala. In 1916, he was advanced to assistant supervisor at Atlanta, Ga., and was made supervisor in 1920. Mr. Moon became roadmaster at Hattiesburg, Miss., in 1924, and the following year was promoted to superintendent, in which capacity he served at Macon, Ga., Charleston, S. C., Alexandria, Va., and Asheville, N. C. At the time of his promotion, Mr. Moon was superintendent at Greensboro, N. C., which position he had held since March 1, 1944.

John T. Moon

W. E. Eastman has been appointed assistant division superintendent of the Southern Pacific, with headquarters at Stockton, Cal., succeeding **E. F. Nassoiy,** who has retired. **G. P. McNamara** has been advanced to assistant division superintendent, with headquarters at Sparks, Nev., succeeding **J. A. McKinnon,** who has been transferred to the Coast division at San Francisco, succeeding **H. W. Hall. T. F. Goodwin** has been made terminal superintendent, with headquarters at West Oakland, Cal., and **E. G. Davis** has been ap-

pointed terminal superintendent on the Coast division, succeeding **E. C. Pearce. Z. T. Adams** succeeds Mr. McNamara as trainmaster at Sacramento, Cal., and **A. W. Kilborn** has been appointed trainmaster at Roseburg, Ore., replacing Mr. Adams. Other promotions to trainmaster are as follows: **T. W. Bernard,** Portland division; **E. C. Watson,** Sacramento, and **T. E. Billingsley,** Roseville, Cal. **D. C. Stahlman,** trainmaster at Hillsboro, Ore., has been transferred to Portland, Ore., succeeding **W. W. McDonald,** who has retired. **L. W. Garrison,** assistant trainmaster at Portland, has been advanced to trainmaster at Hillsboro.

R. M. Stone, whose appointment as superintendent of the Virginia division of the Seaboard Air Line, with headquarters at Raleigh, N. C., was announced in the August 17 issue of *Railway Age,* was born in Portland, Me., and began his railroad career as a dispatcher. He joined the Seaboard in 1926 at West Palm Beach, Fla.,

R. M. Stone

and subsequently advanced through various posts at Tampa, Fla., Jacksonville, Fla., and Savannah, Ga. He was transferred to Raleigh in October, 1937, where he has remained, serving successively as chief dispatcher, trainmaster, and assistant superintendent. Mr. Stone occupied the last named post at the time of his promotion on August 1.

C. W. Coil, assistant division superintendent of the Northern Pacific, with headquarters at Missoula, Mont., has been promoted to division superintendent, succeeding **Dan Healy,** who has retired after completing 47 years of service.

C. R. Pedigo, trainmaster of the Missouri Pacific, with headquarters at Wynne, Ark., has been promoted to assistant to general superintendent transportation, with headquarters at St. Louis, Mo. **C. R. Dodson,** trainmaster at Bush, Ill., succeeds Mr. Pedigo, and **R. J. Dugan** succeeds Mr. Dodson as trainmaster at Bush.

TRAFFIC

V. T. Corbett, assistant general passenger agent of the Chicago, Rock Island & Pacific, with headquarters at Chicago, has been appointed chairman of the Southwestern Passenger Association, succeeding **J. M. Vonau, Jr.,** who has been appointed general passenger agent of the Southern Pacific, with headquarters at San Francisco. **D. L. Eckman,** office manager of the passenger traffic department, with headquarters in Chicago, has been promoted to assistant general passenger agent, succeeding Mr. Corbett.

Harry H. Goble has been appointed general eastern agent of the Tennessee Central, with headquarters at New York.

J. S. Bloodworth, assistant general passenger agent of the Southern at Raleigh, N. C., has been appointed general passenger agent there.

Howard G. Carmichael, traveling agent of the Chicago & North Western System, with headquarters at Winnipeg, Man., has been promoted to general agent, with the same headquarters.

C. W. Edwards, assistant general passenger agent of the Chicago Great Western, with headquarters at Chicago, has been promoted to general passenger agent, with the same headquarters.

H. L. Hanes, commerce agent of the Nashville, Chattanooga & St. Louis, with headquarters at Nashville, Tenn., has been appointed assistant to freight traffic manager, in charge of commerce department, with the same headquarters.

V. J. Kenny, general agent of the Great Northern, with headquarters at Cincinnati, Ohio, has been promoted to passenger traffic manager, with headquarters at St. Paul, Minn., succeeding **A. J. Diekinson,** who has retired after 48 years service. **H. H. Knocke,** traveling freight agent, with headquarters at Cincinnati, has been advanced to general agent there, succeeding Mr. Kenny.

R. M. Barnett, assistant general freight agent of the Seaboard Air Line at Washington, D. C., has been transferred to Charleston, S. C., succeeding **D. P. Hartley,** who retired from active service on August 31 after 38 years with the Seaboard. Mr. Barnett's former post has been abolished. **G. C. Tate,** commercial agent at Pahokee, Fla., has been appointed general agent at Washington. **H. O. Carlton** has been named general agent at Belle Glade, Fla., while **E. C. Speed** becomes district freight agent at Charleston, S. C.

R. H. Pusch, general passenger agent of the New York, New Haven Hartford, with headquarters at New York, has been appointed assistant to passenger traffic manager there. **Richard C. Stanley,** assistant general passenger agent, becomes general passenger agent, with headquarters as before at New York, while **Albert E. Spette,** manager of the Pullman reservation bureau at Grand Central terminal and assistant to the general passenger agent, has been named assistant general passenger agent. Also at New York, **Charles F. Clark,** traveling passenger agent, has been appointed manager of tours and will be in charge of the tour and resort bureau at Grand Central terminal.

C. J. Dinkelkamp, general agent of the St. Louis Southwestern, has been promoted to general freight agent, with headquarters as before at St. Louis, Mo. **M. J. Toso,** commercial agent, with headquarters at New Orleans, La., has been advanced to general agent, with the same headquarters, succeeding **F. L. Barnes,** who has been transferred to St. Louis. **L. G. Torbeck,** commercial agent, with headquarters at Cincinnati, Ohio, has been promoted to general agent, succeeding **R. W. Byrne,** who has retired after 57 years of railroad service. **R. J. Kinsella** has been appointed assistant general freight agent, with headquarters at St. Louis. Also retired are **H. D. Landry,** assistant general freight agent, with headquarters at St. Louis, who has completed 63 years of service, and **J. K. James,** also assistant general freight agent at St. Louis, after 57 years of railroading.

ENGINEERING & SIGNALING

F. W. Campbell, assistant division engineer of the Canadian National, has been appointed division engineer, with headquarters as before at Belleville, Ont., and jurisdiction over the Belleville division.

MECHANICAL

H. A. McFadyen, master mechanic of the Canadian National, at Edmonton, Alta., has been transferred to Calgary, Alta.

E. C. Meinholtz has been appointed engineer of tests of the Missouri Pacific, with headquarters at St. Louis, Mo., succeeding **J. R. Jackson,** who has been granted a leave of absence to serve with the mechanical division of the Association of American Railroads.

PURCHASES AND STORES

J. V. Miller, manager of stores of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Milwaukee, Wis., has been promoted to general storekeeper, with headquarters as before at Milwaukee, succeeding **J. T. Kelly,** who has been assigned other duties. **A. M. LeMay,** assistant general storekeeper, with headquarters at Chicago, succeeds Mr. Miller.

T. P. Lynch, tie and timber agent of the New York Central at New York, has been appointed assistant general purchasing agent there for the New York Central, the Indiana Harbor Belt, the Chicago River & Indiana, and the Chicago Junction. **G. M. Wright,** general superintendent of scrap and reclamation of the New York Central, has been named manager, scrap and reclamation, with headquarters as before at Ashtabula, Ohio, and his former post has been abolished. The office of manager, stores and reclamation, at Ashtabula, formerly held by **A. L. Prentice,** whose promotion to general purchasing agent at New York was announced in the August 31 *Railway Age,* has also been abolished.

SPECIAL

Dr. F. C. Warring, Sr., has been appointed chief surgeon of the Western Maryland, with headquarters at Baltimore, Md.; and the office of chief resident surgeon has been abolished.

News Department

(*Continued from page 422*)

N. Y. Central Tug Captain Gets Citation

John G. Kaufman, captain of New York Central Tug 32 in New York Harbor, who took action which prevented a serious disaster in the Port of New York in 1944, was presented on August 21 with a Meritorious Service Award by the War Shipping Administration. The circumstances of Captain Kaufman's feat are summarized as follows:

"In August, 1944, New York Central Tug 32, commanded by Captain Kaufman, was performing routine duties in New York Harbor, when explosions were heard and fires noted on the Hoboken water front. The master proceeded immediately to Pier 4, which was aflame, and for over an hour played his fire hoses on the south side of the pier. Upon receiving word that there were barges and a ship in danger on the north side of the pier, Captain Kaufman steamed to their assistance.

Despite the hazard of burning gasoline and the known presence of military explosives, the master nosed his tug through a heavy curtain of smoke and succeeded in getting a line fast to a large French freighter berthed in the slip. Single-handed, Tug 32 then towed the ship away from the flames to a safe anchorage in midstream. Captain Kaufman then returned to the scene and effectively used his fire hoses on barges and pier until the situation was under control. His prompt action in an emergency and his fearless and skillful handling of his vessel in a dangerous operation were in keeping with the high traditions of the United States Merchant Marine."

Safe Shipment of Explosives in 1945

More than 247,000 tons of commercial explosives were shipped safely over the railroads of the United States and Canada during 1945, without injury to a single person or damage to any property from accidental explosion, reports H. A. Campbell, chief inspector of the Bureau of Explosives of the Association of American Railroads.

"The period marked the twentieth consecutive year in which neither dynamite nor black powder has been involved in any kind of accidental explosion during transit over the rails of the two countries," his report continues. "Increased use of explosives in the productive operations of industry for the war program made last year's achievement an outstanding addition to the already impressive record of safe transportation of explosives."

"Normally about 5,000 cars laden with blasting agents for industry are on the move or standing on tracks in the United States and Canada at all times, which means about one explosives car for every 60 miles of trackage.

"Organized effort to safeguard the thousands of railroad passengers and employees who daily come close to these cars began in 1907. That year explosives figured in 79 railroad accidents. Fifty-two persons were killed and eighty others were injured. Property loss amounted to about $500,000,000.

"Manufacturers of explosives and the American Railway Association launched an intensive campaign of cooperation to eliminate this loss of life and property. In 1907, the Bureau for the Safe Transportation of Explosives was established by the Railway Association with 75 railroads participating. The bureau is maintained by funds contributed by railroads, manufacturers of explosives and other dangerous articles, container manufacturers and express companies."

Current Publications

Books

The Modern Wonder Book of Trains and Railroading, by Norman Carlisle. 289 pages, illustrations. Published by the John C. Winston Company, Philadelphia, Pa. Price, $2.50.

This book covers the development and operation of railroads in the United States, but includes some data on foreign railroads as well. It is writen in a style that will interest both children and adults. It contains many fine illustration, a number of railroad trade marks, a chapter on railroad slang, and is well-indexed.

Economics in One Lesson, by Henry Hazlitt. 222 pages. Published by Harper & Brothers, 49 E. 33rd St., New York 16, N. Y. Price, $2.00.

This volume is "an introduction to economics based on the conviction that the shortest and surest way to an understanding of this science is through analysis of the economic fallacies most popular today, and particularly of the central error from which they stem."

Pamphlets

Joint Equipment Committee [Report on] Costs of Railroad Equipment and Machinery, August 1, 1946. 12 pages. Published by the Association of American Railroads, Finance, Accounting, Taxation & Valuation Department, Transportation Building, Washington 6, D. C. Free.

This report brings up to date the data on historical costs on locomotives and freight train cars, and the data on average relationship of costs on various types of equipment and machinery.

Articles in Periodicals

Railways of the U. S. S. R., by D. Svetov and B. Belogorsky, and The Welfare of Railway Workers, by A. Tretyakov. U. S. S. R. Information Bulletin, Vol. VI, No. 55, August 7, 1946, pp. 3-4 and 6-7, respectively. Published by the Embassy of the Union of Soviet Socialist Republics, 3031 Gates road, Washington 8, D. C. Free.

The first article discusses briefly the war-time operations of the railroads and what is occurring on them presently under the new Five-Year Plan; the second outlines what the new Five-Year Plan proposes to do for railway employees.

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One of six Diesel locomotives of the same design now in through passenger service on the Baltimore & Ohio, No. 56 powers the Capitol Limited between Washington and Chicago. This 3600 h.p. giant, placed in operation eight years ago, has earned an enviable reputation by maintaining low-cost, dependable service despite its sustained, heavy-duty war-time operation.

Vanadium Steels

The 2-million-mile-and-still-going-strong service record of this B. & O. Diesel locomotive is typical of the repeated use of Vanadium steels, by locomotive and car builders, to secure the extra margins of strength, wear resistance and heat resistance so important for the most efficient operation.

On the B. & O. No. 56, for example, driving motor pinions and gears are of Chromium-Vanadium steel (SAE 6145) to obtain high strength-to-weight ratios combined with maximum wear resistance. Chromium-Vanadium steel (SAE 6150) is used for exhaust valve springs and many other parts which must resist high temperatures. And many cast parts utilize the uniform high strength and toughness of Manganese-Vanadium steels.

Our extensive knowledge of Vanadium steels and their applications is available through an experienced metallurgical and engineering staff. We will gladly assist you in selecting the right alloy steel to meet your particular needs.

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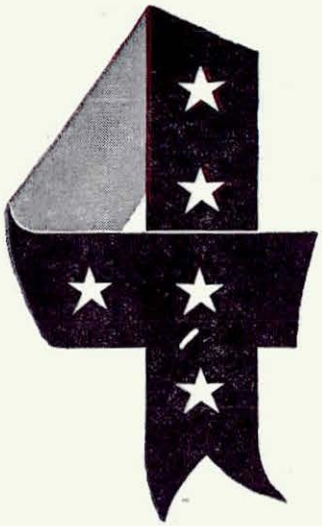

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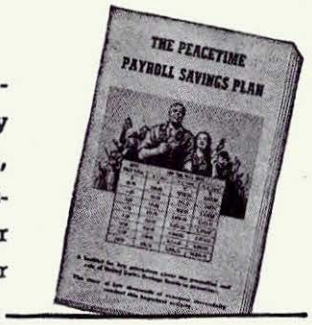

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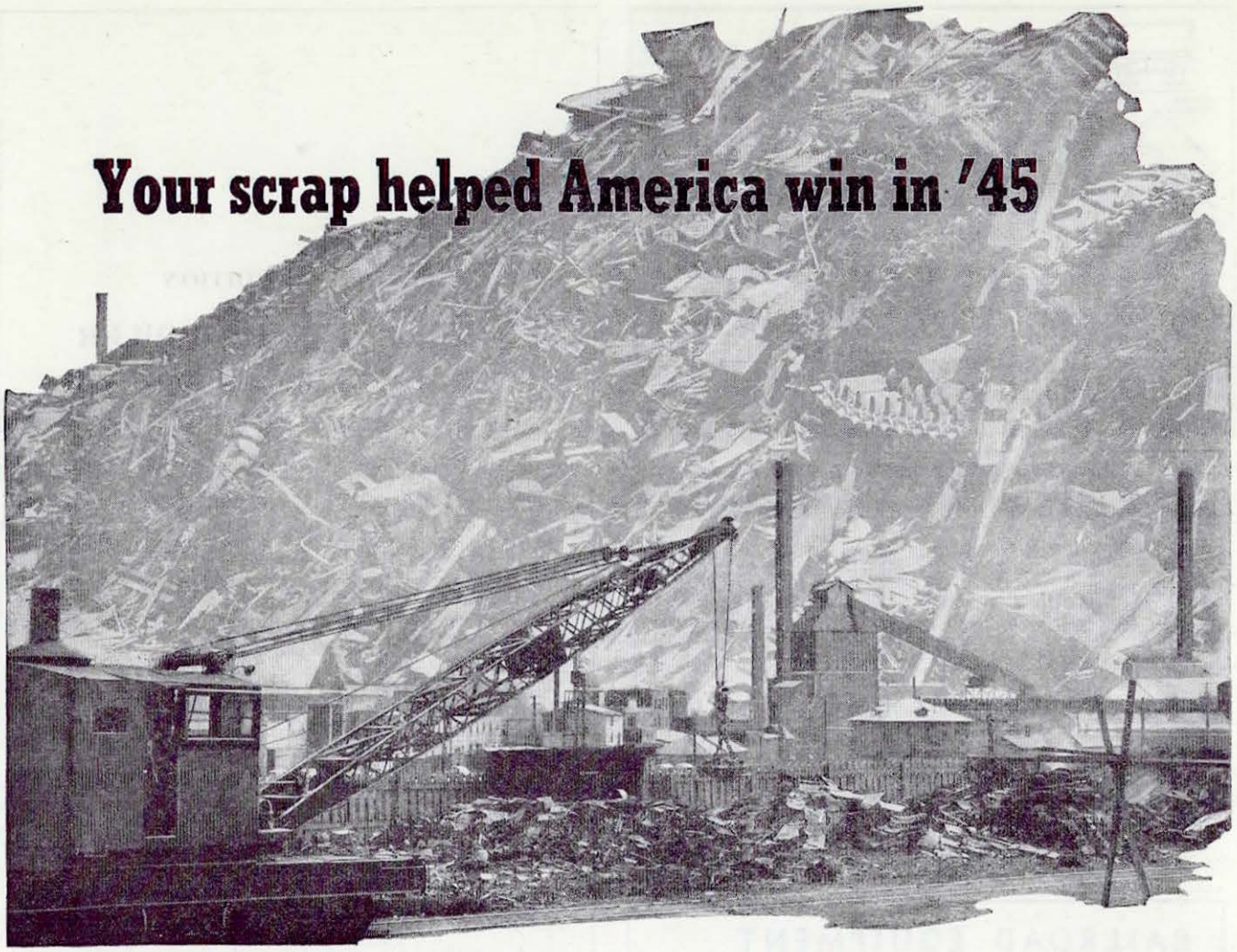

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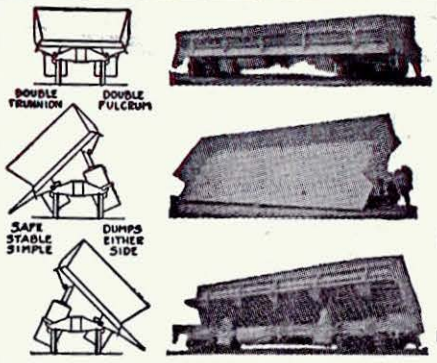

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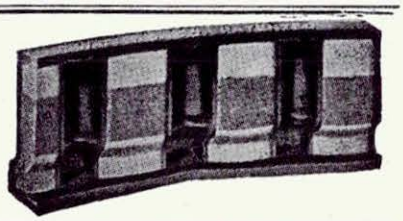

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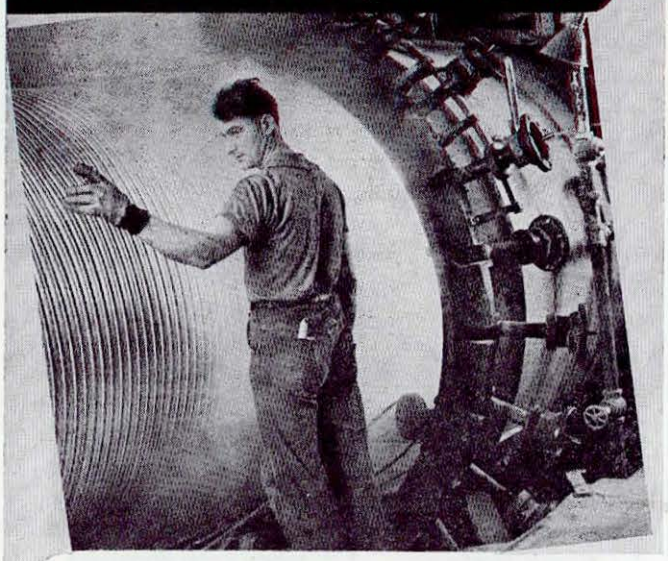

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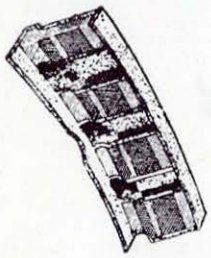

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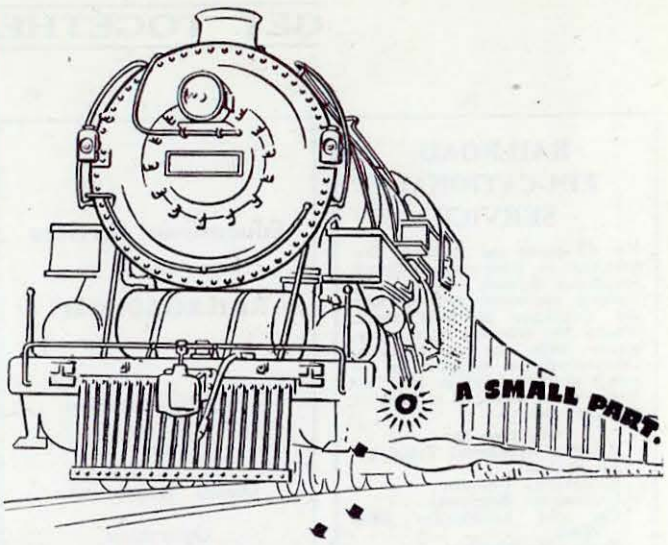

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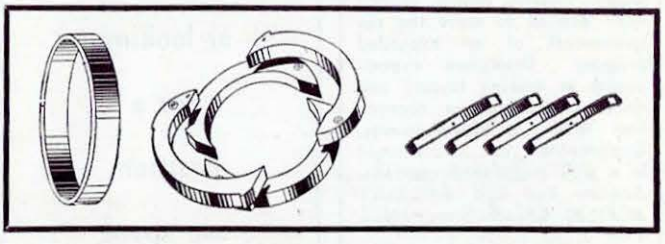

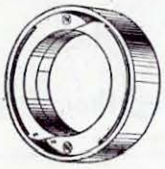

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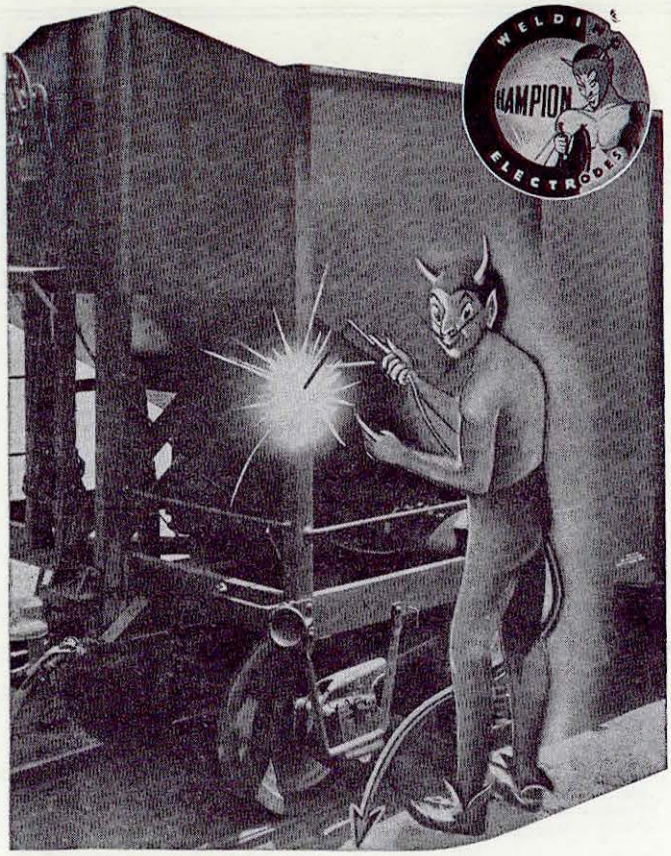

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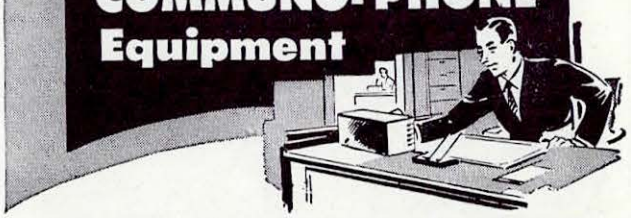

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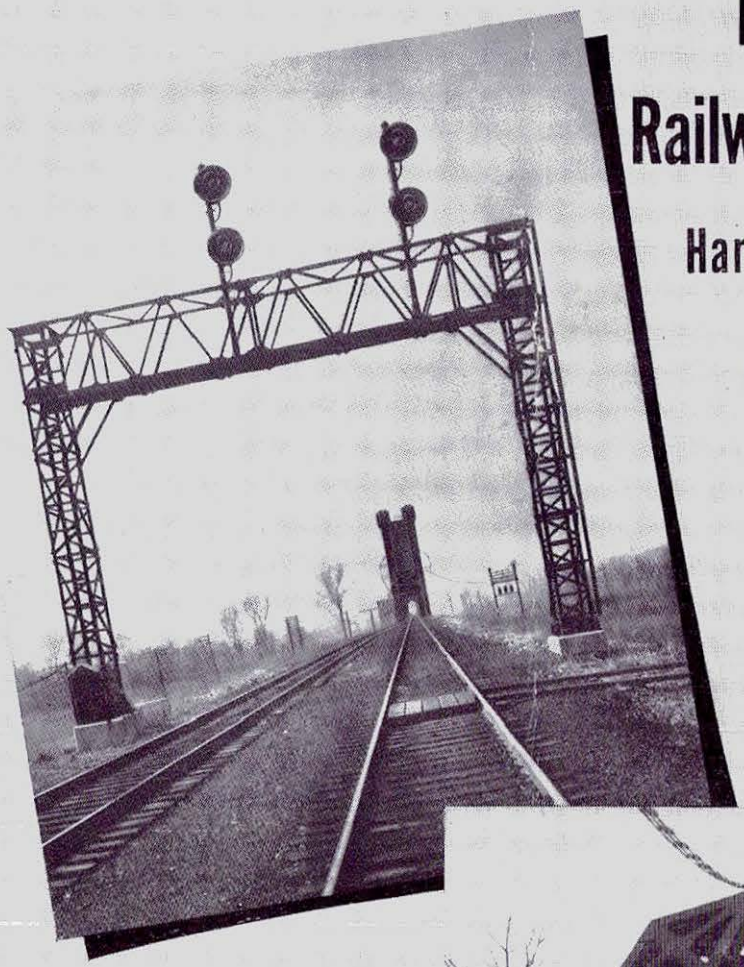

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